

AMERICAN AGRICULTURIST.

Designed to imbrobe all Classes interested in Soil Culture.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN —WASHINGTON.

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WORK FOR THE MONTH.

Joyous, the impatient husbandman perceives
Relenting Nature, and his lusty steers
Drives from their stalls, to where the well-used plow
Lies in the furrow, loosened from the frost.
There unrefusing, to the harnessed yoke
They lend their shoulder, and begin their toil,
Cheered by the simple song and soaring lark.
Meanwhile incumbent o'er the shining share,
The Master leans, removes the obstructing clay,
Winds the whole work—and side long lays the glebe.

This is Thompson's picture of a March scene among the farms of old England. The poet has given to the scene a little of the rose color of fancy, even though the season there is more forward than with us. Nature indeed begins to relent upon our shores in this month, but very little plowing is done ordinarily, until its last days. If it thaws by day, it freezes by night, and not much progress is made in relieving the ground of the deep frosts, that have accumulated in the winter months. Still it is manifest, on every side, that the reign of the frost king is broken. The rivers and lakes are unbound, and the great cakes of floating ice go down the rivers in majestic procession to the sea, covering many square leagues of its waters. The vessels, so long ice bound in port, again spread their sails to the breeze and the streamers again thread the winding channels of our inland waters. It is a beautiful sight to see these signs of returning life and activity, after the long and dreary winter.

Remote from the sea and navigable waters, the indications of the changing season are quite as manifest. One by one, the great snow barriers laid upon the highways go down before the advancing sun. The morning light comes earlier, and prolongs its stay at evening, as if loth to part with the world it was waking to new life and beauty. The buried meadows and stubble fields emerge from their long darkness beneath the snow. The banks under the walls gradually disappear, and in sunny and sheltered spots, the grass cautiously thrusts its green blades through the dead stubble of the former year. It is a glad sight, to see these patches of verdure starting under the walls, and upon the hill sides, and extending their domain over the sere fields. Along the water courses the willows give the first indications of life, and the young buds start out armed with

furs, as if afraid to venture into the frosty air. This doubtless is one of the beautiful provisions of Nature to guard these early buds against injury.

In the forest, too, there is a silent quickening of the buds, though it is hardly yet perceptible to the eye. The sap begins to move, and the harvests of the sugar fields of the north are now gathered. In the maple orchards, all is life and bustle. The sunny sides of trees are tapped, and from the smooth elder-spouts, the forest nectar drips into rough home-made troughs. The contents of these troughs are daily gathered up, and carried to the boiling house in pails by hand, or poured into barrels, and drawn by oxen upon a sled. The kettles are kept boiling while the sap runs, and the sap is sugared off into pans of various sizes, making solid cakes. In this way many families supply themselves with all the molasses and sugar used at home, and make a surplus for market. This harvest comes at a season of the year, when other farm work is not pressing, and for those who have a good supply of rock-maple in the forest, it is perhaps the cheapest method of furnishing sweetening for home use. The price of a clean light-colored article of maple sugar is always high in the cities, and large quantities are disposed of by confectioners. The city demand has led to greater care in the process of manufacture, and parties studying clean sap-vessels, kettles and neatness in the process of crystalization are amply rewarded for their trouble.

Forests in which maple trees abound are sometimes thinned out, leaving nothing but the maples for this manufacture. Rough lands are sometimes planted with young maples for this purpose. In mountainous districts, remote from sea ports, lands thus treated will perhaps pay as well as in any other crop. The maple flourishes admirably in very rough rocky soils, and such lands in many parts of the north will pay better for generations to come in forest, than in anything else. Maples grow rapidly and may as well be planted as any other variety of wood. It is a favorite wood for fuel, forming a clear light blaze, and a hard coal retaining its heat for a long time. It is also an excellent wood for timber, and immense quantities of it are used in the manufacture of chairs, washing boards, various articles of cabinet work, and agricultural implements. We would say then to those who are making clearings in the forest and devoting all wood to indiscriminate destruction,

SPARE THE ROCK MAPLES.

They will certainly pay well for wood and timber in another generation, and may be the cheapest resort for sugar, as they undoubtedly now are in many farming districts. It is by no means settled that the new cane which promises so well, will be our cheapest source of sugar, even if sugar can be made from it, with profit. Or if it gives a profitable return of sugar and syrup, south of the forty second parallel of latitude, it is not certain that it will yield sugar enough to pay for cultivation in higher latitudes, and in the coldest parts of the country. There are many unsettled questions in regard to this plant, so that, the good old sugar trees of the Indian should still be cherished among us, as a matter of economy, if not of taste. The general subject of

THINNING FORESTS

receives far too little attention. The slovenly method of cutting wood where it can be got with the least trouble, is to be reprobated. Nor do we believe the method sometimes recommended of cutting a forest clean, as you go, is a good rule for all cases. It may be advisable in those cases, where the forest is uniformly old, and most of the trees are growing worse rather than better for timber. But this is the character of very little forest land in the older States. Almost all of it is second or third growth of timber, and contains a great many thrifty saplings from five to ten years old, that, if cut, will only put back the subsequent crop of wood to many years. Silas Brown, one of the best farmers in Massachusetts, says in a recent communication in the N. E. Farmer, that he has been in the habit of cutting wood for market for forty years as one of the most profitable productions of his farm, and that he has paid critical attention to the succeeding growth. "At the time of removing the old growth, young white pines had sprung up, and had advanced in all sizes, from one foot up to some twenty feet in height, on some of my lots; on other lots there was no appearance of young progeny. We were very careful to save all the young trees possible, instead of indiscriminate havoc. The advantage of saving the saplings will be readily discerned by every practical wood grower; the young trees carefully preserved from injury, while cutting off the old growth, will soon take a start, and be in advance of the forest, which is to spring from the seed, some 5, to 15 or 20 years. This advance in the growth is

no small item, in the farmer's income. On lots, where none of these young saplings had taken root, I have been careful to select suitable seed trees of the varieties I wished to propagate, and spared one or more on every acre I wished to replenish, with a future growth. In this way I have been saved the labor of sowing the seed, or transplanting the trees, and have found about the third or fourth year from the cutting off, a plentiful supply of young trees showing themselves, but greatly in the rear of those lots where the young saplings were saved."

This is valuable testimony from an intelligent farmer, who has seen the working of both methods upon his own woodlands. The care of our forests, so rapidly waning in all the older states, is a matter that can receive attention none too soon. The time is not distant when they will be far more valuable than they now are for timber, if not for fuel. Fuel, we may indeed find elsewhere, but nothing can ever supply the place of wood in many of our manufactories. The farmers of the present day should consider the wants of posterity in this respect, and should hand down their farms to their heirs as well wooded, as they received them from their fathers. There are large tracts of country in this State, and indeed in the rougher portions of all the states, that may be more profitably kept in timber, than in anything else. It is a poor inheritance to hand down to one's heir, a miserable worn out farm, not only stripped of its soil, but denuded of its forests, without any available means to restore its wasted energies. The rocky hill tops, and ridges should always be kept in forest. The plains and vallies below will have a milder climate, and be more productive for their protection. Where these elevations have been stripped, they should be immediately sown with seeds of forest trees. Too much of this rough land has already been cleared up, in many parts of the country.

SUBSTITUTES FOR WOOD,

have as yet been very little thought of, out of cities and villages. But vast store houses of excellent peat are in reserve upon many farms. This is used in some small districts in this country, and might come into use still more largely with great advantage to the waning forests. In the town of New-Shoreham, an island near Newport, R. I., it is the only fuel, and has been for the present generation. These peat mines are worth looking up. They exist upon many farms in worthless swamps, unknown to their owners, because they have never been explored. But near railroads, and navigable waters, anthracite coal is already a more economical fuel than wood, and many farmers are resorting to it, for their winter supplies. They only cut such trees, as are decaying, for their own fires and for market. The forests are judiciously thinned, and are every year increasing in value. This course could be adopted by a much larger number, with profit.

THE WELL-USED PLOW

of which the poet speaks, though true enough in his sense, is still a very ill-used

implement, if left standing in the furrow, exposed to all the winter storms. But we frequently see this spectacle in our travels over the country. Such neglected tools can not live out half their days. They become saturated with water, decay early, and break. The fault, of course, is charged upon the manufacturer of agricultural tools, when it properly belongs to a careless and improvident owner.

A TOOL HOUSE

is the moral of all such plows left standing in the furrow. It was justifiable when farmer Putnam heard the first guns of the Revolution to leave his plow in haste. But the attack of winter is less sudden, and every tool should be in its place. Now they should be thoroughly overhauled and put in order. The spring's work is just ahead.

PLANNING WORK IN THE KITCHEN GARDEN.

Little can yet be done here besides pruning trees and shrubbery, and preparing hot-beds. Of these operations we have spoken elsewhere. Our object now is simply to urge the careful *planning* of the spring work, which will soon begin in earnest. In a few weeks, spring will be here, with her birds, her early flowers and bursting buds; and all our readers will be full of business, from morning till night. It will be too late to plan then. But now, while winter still lingers, and your hands must, of necessity, lie comparatively idle, work with your brains. Spread a sheet of paper before you, and, with pencil and ruler, map off your garden into some convenient plan. *There is a particular design which is better for you than any other: find out what that is and put it on paper*, preparatory to working it out on the soil itself. For example: the rhubarb and the asparagus-beds should have a warm corner, so as to give them an early start in spring. Grape-vines, also, need a sheltered and sunny aspect, to insure the ripening of their fruit before frost. Give them such a position, accordingly, on your plan. No modern garden is considered complete without its collection of dwarf pears,—the number varying with the size of the garden—its raspberries, blackberries, currants, gooseberries, peaches, apricots, quinces and the like; and successful practice assigns these to borders running around the garden, and sometimes through the middle. Therefore, mark off on your plan a border, from four to six feet wide, on each side of the garden next to the fence, and if you have room, run a broad walk through the centre, with borders of the same width on each side. The walk next to the fence-border may be three or four feet wide, and the central walk, five. If vines or espalier trees, occupy one of these outer borders, they can be trained on the fence, leaving room in front of them for other small fruits, as gooseberries, strawberries, &c.

In planting dwarf pears, and other small fruit trees, they should not be set so near together, or in such situations that they will shade the vegetables which are to grow near

them. Eight feet apart is near enough, and the largest should be set, if possible, where their shades will fall across the walks, and not on the beds devoted to vegetables. And here, let us say, while planning these borders, take pains to fill them with the best kind of each fruit selected. Among currants, raspberries and grapes, for instance, there is great room for choice; and it would be great folly to plant the poor sorts, which, after years of wasted toil, will have to be torn up and thrown away in disgust. Among dwarf pears, also, a wise selection is perhaps of still greater consequence. Experience has now decided that certain sorts of pears uniformly succeed well on the quince-stock, others less often, and others seldom, if ever. There are but few persons for whom it would be worth while to trifle with these uncertain varieties. We say, then, ascertain from books, papers and your horticultural neighbors, what the reliable sorts are, and let them alone appear on your plan, and in your garden.

Thus much for the fruit-borders. The remainder of the garden may be laid off in beds, or in square plots for vegetables. These may be intersected with narrow walks, as convenience shall require. The vegetables most commonly needed and most commonly grown for family use, are as follows: For summer—asparagus, peas, lettuce, cucumbers, summer-squash, melons, beans, tomatoes, beets, cauliflower, sweet-corn, spinach, peppers, egg-plant and radishes. For winter use—cabbage, carrots, winter squash, parsnips, oyster-plant, potatoes, beets, turnips, onions and celery. There should also be a permanent bed of herbs, such as sage, thyme, parsley, mint, sweet marjorem, summer and winter savory. And for a relish, devote a corner to horse-radish.

Every one should determine beforehand, which of these vegetables and herbs he will plant, how many of a sort, and where they shall stand. Let these things be noted on the plan already referred to. Then, nothing will be forgotten when the busy season comes, and everything will occupy its appropriate place.

It is, perhaps, unnecessary to add, that it should form part of every plan to keep melons and squashes as wide asunder as possible, to prevent their mixing; that where it can be done, two crops of vegetables should be grown in succession the same season,—for example, celery following peas, and turnips following cauliflowers. It would also enter into a good garden-plan to ascertain and note down the best sorts of each vegetable to be grown. There is a great difference between varieties, and it is important to find out what the best are, and to procure the seeds before the hurry of planting time comes.

By drawing up now, some plan like that we have indicated, and adhering to it, garden work will proceed intelligently, and in its results will afford great satisfaction.

The oftener carpets are shaken, the longer they will wear. The dirt that collects under them grinds out the threads.

CALENDAR OF OPERATIONS.

MARCH, 1857.

[We put down here a summary of various operations, many of them very common ones, it is true, but a simple catalogue like this will often suggest a piece of work that would otherwise be forgotten. The Calendar is adapted to the latitudes of 41° to 42°. A little allowance must be made for each degree of latitude—later north—earlier south. This table will be made out anew every month and adapted to the season of each year. It will also be greatly enlarged at the planting and sowing seasons.]

EXPLANATIONS.—The letters f. m. l. refer to first, middle, and last of the month.

Doubling the letters thus: ff., mm., or ll., gives emphasis to the particular period indicated.]

FARM.

The chief business for this month will be to prepare for the operations of April and May, two months which should be relieved of every possible burden.

Cattle—These should have special care at the present season. A little neglect now, will often produce debility which a whole summer may not recover.

Cows—Treat those 'coming in' with suitable nourishing food, giving roots or meal with cut fodder, unless there is a predisposition to excess of milk, or milk fever. Give plenty of pure water. Provide those about calving with plenty of stable room.

Cellars—Clean early, removing all decaying vegetables and after washing, whitewash the walls and ceiling, ventilating freely.

Clover—Sow m. to l., either on a light snow, or better when the ground is frozen on a calm morning.

Draining wet or stiff soils—Commence as soon as the frost is out of the ground—see article.

Fences—Repair as early as may be, collecting posts, rails and stakes for future use. Have a good pile of each finished and packed away, under cover, if possible.

Fodder—Preserve due economy in feeding, using racks if given in the yards. If cut, and a little meal strewed over, wetting enough for it to adhere, cattle will eat what they otherwise refuse.

Fowls—Provide with lime or powdered oyster shells, and animal food. See that plenty of good nests are made. Artificial eggs are very convenient when severe frosts occur. Those of porcelain or white glass are now sold quite low.

Grain for Seed—Procure a full supply of all that will be needed and thoroughly cleanse it for use. Test if necessary as described elsewhere.

Harrow out old corn roots f. to m. or as soon as the frost is out.

Hogs—Continue to make all the manure possible, using muck, leaves and straw. Give extra food to sows with young pigs, adding a little animal food and salt occasionally.

Horses—Have in good working order, mixing or alternating their grain with carrots.

Manures—Continue to make under cover. Cart from the yards and pens to large heaps where it is to be used at a distance, keeping them covered with muck or plaster.

Mowing Lands and Winter Grain—Do not allow cattle or sheep to trample them over.

Oxen—See that they are well kept and in working order. Plowing may be done as soon as the frost is out and the ground dry. Better defer for a few days however, than turn over a heavy wet soil to bake in the sun.

Potatoes—Select for seed, and sort over those for family use keeping them as much as possible from warmth, air and light.

Sheep and Lambs—Require much care at this season. Feed well, and keep ewes with lamb away from cattle—indeed sheep should always be kept by themselves. Give salt, or feed salt hay occasionally.

Sugar Maples—Tap ff. and attend to daily. See Work for the Month.

Tools—Look over, and if any are wanted, procure them before you are hurried. Repair old ones and see that the plowing gear is in readiness.

Wood—Complete the preparation of, for summer use ff., that no future delays may be necessary on this account. See article on former page relative to "Forests."

Young Stock—See that it comes through the winter in good condition. Do not turn out to pasture too early.

ORCHARD AND NURSERY.

Apples—Plant as soon as the ground can be worked.

Apricots—Plant f. m. l.

Blackberries—Plant m. l.

Cherries—Plant early and graft m. l. See article on grafting.

Currants—Set out and put in cuttings f. m. l.

Digging Trees and shrubs in Nursery—Attend to during the month putting them in trenches for spring use or sales.

Figs—Plant, layer, and put in cuttings m. l.

Fruit and Deciduous Ornamental Trees—Transplant and plant out, both in Orchard and Nursery, f. m. l.

Gooseberries—Plant and put in cuttings m. l.

Grafting—Perform on cherry trees in mild weather m. l. See article. Apples and Pears may be grafted ll.

Grapes—Prune ff. if not done. See article.

Mice-girdled Trees—Cover with grafting wax or clay and bank the earth up about them. See notes to correspondents.

Mulch newly planted trees.

Nectarines—Plant m. l.

Packing Nursery Trees—Perform with care, using moss for the roots, covering with mats, and straw up the bodies.

Peaches—Plant and head back m. l. Examine for borers, cutting them out with a knife whenever found.

Pears—Plant both Dwarf and Standards m. l.

Planting Seedlings and Stocks—Follow diligently before the rush of business comes on. Early planting is much preferable, especially in dry seasons.

Pruning—We advise doing but little more than removing injured branches. See article on page 27.

Quinces—Plant m. l.

Raspberries—Uncover ll. if the weather is quite settled.

Plant hardy varieties m. l.

Scions for Grafting—Cut ff. See article.

Shrubs—Transplant early blooming varieties f. m. l.

Strawberries—Uncover and dress, making new plots l.

Trench or subsoil, when ground is dry enough, and manure heavily grounds which are to be planted with nursery stock. It is better to prepare the soil to produce a crop of trees without much after manuring.

Vines—Prune, layer, make cuttings and plant f. m. l.

Walnuts, Chestnuts, and any other seeds including apple, pear, quince and peach put in boxes last fall—should be planted out ff. to m.

KITCHEN AND FRUIT GARDEN.

The operations in these must necessarily be governed by the forwardness or backwardness of the season. Generally it is not best to put many seeds into the open ground until the weather is somewhat settled and the soil both warm and dry. As most vegetables are more tender and of superior flavor when grown quickly, it is better to sow at such times as they will come rapidly forward which they can not do, during the changeable weather of early spring. The planting of all the vegetables mentioned below may be deferred until April, in this latitude, and may be necessarily so, but as that will be a very busy month, if the ground will admit of working, it is better to forward the operations by planting some of the more hardy varieties during this month. From present appearances we have the promise of an early spring, and vary the Calendar a little in accordance.

Artichokes—Jerusalem—Dress and plant m. to l.

Asparagus—Uncover old beds ll. removing the coarse litter and forking in plenty of manure, taking care not to injure the crowns of young plants. Sow seed and plant out new beds, trenching the soil and manuring heavily.

Blackberries—Plant ll. if on light, warm, dry soil.

Borecole or Kale—Sow ll.

Cabbages—Sow and plant out from cold frames ll. Set out stumps for early greens m. to l. Sow in Hot Beds ff.

Cardoon and Caraway—Sow ll.

Cauliflower—Sow f. in Hot Beds, and ll. in open ground pricking out those in cold frames ll. if the weather appears settled.

Celery—Sow in Hot Beds f.

Cold Frames—Air freely each day, sowing seeds ff. to take the place of plants to be pricked out ll.

Compost for hot beds and general use—Prepare ff. and cart to grounds where it is to be used. Turn over those heaps carted out last month and which are now fermenting, fixing the escaping gases by charcoal dust, plaster, or muck thrown over the whole heap.

Cress—Sow ll.

Currants—Plant and put in cuttings as soon as the ground is in working order.

Egg Plants—Sow ff. in Hot Beds.

Fruit Trees trained as espalier—Regulate and fasten to trellises ff.

Garlic—Plant l.

Gooseberries—Plant as currants, which see.

Grape Vines—Prune ff. if neglected, see article on another page.

Grounds—Level those ridged up last fall and plow and manure lands for early planting.

Horse Radish—Plant m. to l.

Hot Beds—Make ff. See article in present number.

Kidney Beans—Force m. to l.

Leeks—Sow m. to l.

Lettuce sow ff. in Hot Beds; pick out from frames and sow in open grounds ll.

Liquorice—Plant m. to l.

Manure—See compost.

Mustard—Sow m. to l.

Onions—Sow and put out sets for rarripes ll.

Parsley—Sow l.

Peas—Sow m. to ll. on warm dry soil.

Plow deep and trench soils for early planting.

Potatoes—Plant early, ll. or sprout in a manure heap f. to m. See article.

Radishes—Sow ff. in Hot Bed and ll. for open culture.

Raspberries—Uncover buried vines ll., if the weather appears settled, tying to stakes at the same time. Planting may also be done, but this may be deferred quite as well to the first of next month, except south of this latitude.

Rhubarb—Remove covering ll. and fork in a good dressing of manure. Set out new crowns and sow seed as soon as the ground can be worked.

Sage—Sow and transplant ll.

Seeds—Procure full supply and test ff. See article on proving seeds.

Shallots—Plant l.

Spinach—Sow m. to l. and uncover any protected during the winter.

Strawberries—Uncover beds ll. and unless the protection was coarse manure, give a moderate coating of fine. See strawberry article on another page.

Tomatoes—Sow in Hot Beds ff. and in boxes m. to l. to be carried in during cold nights.

Tools—Procure and repair ff., mm., ll.

Trellises—Construct and repair f. m. l.

Turnips—Sow a few ll. for early use.

FLOWER GARDEN AND LAWN.

Annals—Plant or sow hardy varieties on warm borders ll. Those less hardy wanted to bloom early, sow in hot bed f. to m.

Asters, balsams, clarkias, hibiscus, petunias, phloxes, portulacas, verbenas, &c.—Sow ff. to m. in mild hot-beds for early flowering.

Box edgings—Plant m. to ll., or as soon as the ground can be worked, clipping both top and roots.

Bulbs covered, according to the directions given last fall—Remove leaves, tan or litter, and stir the surface of the soil gently, without injuring the young shoots. Cover with mats those springing up, should there be heavy frosts.

Carnations, pinks, daisies, &c., in frames—Give plenty of air, shifting to larger pots as needful. Remove any decayed leaves, and water lightly.

Chrysanthemums—Transplant ll., dividing into single roots, or at most so that only three stems will shoot up. They will flower much better than large stools.

Deciduous Trees and Shrubs—Transplant m. to l. Early planting is much the best, especially for early flowering shrubs.

Grass Edging—Trim with edging knife, replacing with fresh turf any defective places. Make new ones with sod from close, fine pastures.

Gravel Walks—Dig up, or hoe and rake off foul ones, covering with fresh gravel, rolling smoothly.

Lawn—Rake off old leaves and grass m. to l., sowing seed on bare spots, or fresh turf may be cut to fill them.

Guano water, [say 1 lb. to 10 gallons, and 2 lbs. to a square rod] given through a sprinkler, or watering pot, or mixed with earth and sown over before a rain, is a good dressing.

Manure—Give to old grounds, spading in thoroughly. Trench or plow in a good supply on grounds to be laid out.

Perennials—Propagate from offsets and by dividing the roots.

Roses—The last of this month is the best time to transplant these. They will bloom more freely and succeed better every way if planted early.

Stock Gillies, Collinsia, mignonette, &c.—Sow in hot beds f. to m. and in warm borders ll.

Tender Plants protected during the Winter—Remove covering from, ll., unbinding those which were stowed up, or drawn in as protection against snow.

GREEN HOUSE.

Air—Admit each day if possible.

Bulbs in flower—Keep near the glass, watering sparingly. Change the water often where they are in hand glasses.

Camellias are still in flower—Wash the leaves but do not wet the flowers. Water as needful. Inarching may be commenced ll.

Chrysanthemums—Water freely as they begin to push into growth.

Cuttings—Put in any which yet remain of last autumn's making.

Geraniums—Keep in airy situations, guarding against green fly by fumigations.

Insects—Destroy by Tobacco fumes, washing with soap suds, &c., before they have made a vigorous growth.

Oranges, Lemons, Oleanders, &c.—Water as necessary, and cleanse those affected with scale.

Pot off plants sown last month.

Seeds—Sow for Hot and Green house and tender annuals for the flower border.

Temperature—Fire heat may be dispensed with except in cool weather. By putting the shutters on at night, the sun heat may be kept above 35° in ordinary weather.

Water—Give more freely now that plants are in a growing state.

HOT HOUSE.

Air—Admit each day if the weather will permit.
 Bulbs—Keep up a succession in flower by bringing in from the Green house. Water freely and if in glasses, change often.
 Cactuses—Bring in from dry shelves, giving airy situations and plenty of water.
 Cinerarias—Turn often to preserve the upright form of the flower stalk.
 Cleanse plants as directed last month.
 Fuchsias, Pelargoniums, &c.—Shift or repot as they advance in growth.
 Heat—Less care will be requisite as the season advances. The temperature should be maintained as even as possible ranging from 55° to 65° and in no case exceeding 85° with sun heat.
 Insects—Follow the directions given under this head in February.
 Roses in bloom—Water freely and watch the approach of insects.

THE APIARY.

Mr. M. QUINBY, (The Author of "Mysteries of Bee-Keeping Explained,") sends us the following directions for the season:

Bees that have been housed, can be put out the first warm days that occur in this month. Snow on the ground is no objection; if it is only hard, it is just as good as bare ground. All that have been out through the winter should now be looked to, as well as those that have not been properly managed in the house. All dust and dead bees on the bottom board should be swept out. Ascertain the actual condition of every stock, whether weak or strong. Turn the hive over to admit the light among the combs—search for and remove all that are moldy—see if there are any little clusters of dead bees among them, if so, remove them at once, before they become putrid, together with all the combs in immediate contact, which are quite sure to be moldy and unfit for use.

All weak colonies are liable to be plundered by the strong ones, and they should be expressly guarded by closing the entrance, allowing only one bee to pass at once—it will do much to prevent a commencement of robbing—when that habit is once established, it is not easily cured. Robbers generally commence depredations the first really warm days.

It is unnecessary to admit as much air to any stock now, as was needed through the coldest weather. It is now important to bring forward the brood as fast as possible—heat is required, and this can be maintained with closed doors better than if all are open—the doors to be regulated by the number of workmen to be accommodated. The weather should also be observed; strong stocks need more air in warm days than in a chilly storm—a little daily attention to regulate the passage will be fully remunerated.

If any need feeding, it should be done by putting honey on the top of the hive; open the holes and set over a box to prevent the bees from other stocks getting it, and if possible even scenting it.

A DISH OF EARLY ASPARAGUS*

Is very desirable after the Winter's fast. This may be easily had with a little trouble and expense. For the last three years we tried the following method, and found it to work well. We have a box made of common pine boards, twelve feet in length and six in breadth. The back board is about 18 inches wide, and the front about six. We place the box upon any part of the asparagus bed convenient, about the first of March, and cover with five sashes made to fit nicely into the frame. This gives a surface of seventy-two feet under glass. We surround the box with a little embankment of horse manure. Between the rows of asparagus we put in a few seeds of radishes, and lettuce, which soon appear above ground and grow finely. The heads of asparagus begin to show themselves in about three weeks, and by the first week in April we have shoots long enough for cutting. They come forward more rapidly as the season advances, and we are enabled to have this delicious vegetable by this method,

*We have two articles on asparagus from correspondents which are laid over for want of room.—Ed.

about a month earlier than the open bed. The advantages of this treatment are, that it saves the transplanting of roots, and the expense and trouble of a regular hot bed. The radishes and lettuce cost only the trouble of pulling.

MANURES—CHAPTER III.

In the first chapter, reasons were given for doubting the necessity of specific mineral manures as food for plants. In the second chapter it was shown, that the air furnishes the principal materials that enter into the growth or composition of all plants, and that it is out of the question to attempt to increase their growth by adding to the atmospheric food. The closing proposition was, that the art of cultivation consists, mainly, in preparing the soil by mechanical means, and then supplying the roots of plants with small quantities of manures, to feed or stimulate them.

What are these manures?

The chemical theorists say: apply to the roots such mineral elements or salts—potash, lime, magnesia, phosphoric acid, &c.—as are found in the ashes of the plant. We have already shown that this is as yet only theory, unsupported by facts. That potash, lime and plaster, which are purely mineral, do hasten the growth and development of plants, is true, but we think their efficiency is not due so much to their serving as direct food, as to the fact that they assist in decomposing, preparing, or retaining other materials, which do act as direct food or stimulants. But of this hereafter.

All past experience and observation show that the roots of all plants are benefited by having around them organic materials in a state of decay. By organic materials, we mean those substances which have constituted some previous plant or animal, having an organic structure.

Chemical analysis shows that the great bulk of all plants, as well as of animal substances, are made up of only four different elementary substances, and that these elements are the same in all. To illustrate: we may have five hundred or a thousand buildings, all different in structure, form, color, &c., and yet all these are composed essentially of wood, stone, brick, mortar, nails, and two or three elementary parts differently mixed or compounded. Any one of these buildings may be decomposed (torn in pieces,) and furnish the elements—the wood, stone, brick, mortar, nails, &c.—for erecting a very different structure. A church may furnish, at least a part of all the materials required for a new dwelling very unlike the church in appearance. The same kinds of materials are found in each, though in different relative proportions, and put together in a different order.

Now the same thing may be said of all plants. Four elements, (called oxygen, hydrogen, carbon and nitrogen,) when arranged together in a particular manner, and in certain proportions, make up the bulk of a corn-stalk. Precisely these same elements, when differently arranged together with a slight difference in the proportion of

each, constitute a wheat-stalk. A third combination, of the same substances, produces a clover-stalk. A fourth combination, produces the flesh of an animal. We could go on and state what has been actually demonstrated a thousand times, that all organic substances, (whether animal or vegetable,) are chiefly made up of these four elements, the difference in form, structure and sensible properties, being due, in part to the manner of arranging the materials together, and in part to the respective quantities of each of the four elements that enter into the composition of the several plants. A single illustration will show that the flesh of the ox, for example, is made of the same materials as the corn-stalk or grass-stalk, viz: If you feed an ox only upon hay, or only upon corn-stalks, his body will increase in size and weight; in other words, his flesh is made out of the materials in the corn-stalk or grass-stalk. So our own bodies are made of the elements that form the vegetable or animal food we eat.

These statements have a direct bearing upon the subject of manures. We are aiming to show, that from a similarity in composition, any one plant or organic substance may be used as food or manure for any or all of the various other plants. A mass of corn-stalks, when decaying, furnishes the elements needed by a growing wheat-stalk. So, also, a decaying piece of flesh will yield its own elements to assist the growth of new stalks of corn, grass or wheat. But for the old plant to give up its elements to the new, it is necessary that the old one should decay, that is, that its elements, its minute particles, should separate from each other, into so finely a divided state that they can be separately taken in by the leaves or roots of the new plant.

Animal substances furnish food more readily than vegetables, because the former decay more quickly, and sooner yield their elements.

In a former chapter we stated, that most animals and vegetables, when decaying, go off into the air in a state of minute division, and that only a small portion is found in any given bulk of air. But the intelligent cultivator will not let any of these decaying materials steal away from his grasp, to be lost in the great general storehouse, when they may be appropriated in the field of his neighbor or that of a stranger, or perchance, by forests or wild plants. The most successful cultivator is he who husbands all the decaying plants and animals within his reach, and stores them away in the soil, directly at the roots of his growing crops, where they are, of necessity, absorbed by the ascending sap and appropriated by the plant-stalks or grains, or by the roots themselves.

Here, in general terms, is the whole theory of manuring, viz: in taxing all useless or previously used organic materials, whether vegetable or animal, for elements out of which to increase the bulk of new forming crops. To return to the illustration drawn from the materials of dwellings; suppose a master-builder should undertake to erect a new building upon the site of an old one

of different construction. The economical builder would save all the old material possible, such as wood, stone, brick, nails, &c., and these he would use in the new structure, wherever they could be made available. Another, of less prudence, would, perhaps, suffer all the old materials to be carried away by other parties, while he would be at the expense of procuring new articles from abroad at a heavy outlay.

Just so, one cultivator allows his old stock of decaying straw or animal manure (which is only a mass of vegetables rendered more perishable by passing through the digesting organs of animals,) to decay upon the surface of the ground, and be stolen away by the atmosphere, or washed out by rains, while he sends away to Peru, or elsewhere, for guano or other fertilizers, which are neither more nor less than decaying animal or vegetable material. His neighbor, on the contrary, secures these same materials on his own domain, and saves as profit, what the other has expended for foreign materials, or done without, at the risk of far less remunerative crops.

But there is much to learn by every one, as to how these home materials are to be better preserved, how they are best applied to growing crops through the soil, which are best, what foreign additions to the farm manures may be made profitably, &c. These are practical topics which we are to discuss.

WHAT MANURES TO PURCHASE.

In order to answer several present inquiries, from those who are now looking about for their spring fertilizers, we will here drop the regular order of discussion until our next issue. As a short answer we will here say, that the only manures we would recommend any one to purchase, aside from those obtained from the stables of animals, are those in which animal matter is the chief element.

Finely ground, *unburned* bones are probably the cheapest fertilizers, where they can be obtained in sufficient quantity at the present prices. They contain much animal matter, which if they are finely pulverized, is quickly yielded to growing plants. Bone dust or *savings* can be applied directly to seeds or roots, where they are most effectual, without any fear of injury. The supply is, unfortunately limited.

Next to bone-dust, we esteem good Peruvian Guano, which consists of partly decomposed bodies of birds and their excrements. We have seen no other brands of guano, so called, which we consider half as valuable as the Peruvian. Much, nay, most of the articles sold as guano, with sundry appellants other than Peruvian, are little better than a mass of mineral matter. There is a great deal of stuff sold as Peruvian which is not genuine. The smell or appearance is no guide in purchasing. It is just now a common practice, among the unscrupulous dealers, to buy the genuine, and mix it with poorer guanoes, or other materials, and sell the whole in 'government bags' as unadulterated No. 1. The only safe guide is to get it from respectable dealers, who are

known to be reliable and to obtain their supplies direct, or from those who buy direct of the accredited agents of the Peruvian Government. No guano is genuine which will not lose one-third to one-half its weight when heated to redness in an iron spoon or on a shovel. Great caution is required in applying good guano, as it will destroy seeds and plants when brought in direct contact with them. The best plan is to pulverize and pass it through a sieve, then mix it well with five to ten times its bulk of dry earth, a week to a month before using, and put the mixture into the soil a few days before adding the seed; or the mixture may be sown broadcast as a top dressing. Used in this way it is a powerful fertilizer, for most crops, and on most soils. The general rules which we shall give in our next, for using various manures, will also apply to guano. The price is very high—far higher than it ought to be—but still we cannot do otherwise than recommend it, even at the present rates which the Peruvian Government is pleased to ask for it.

Next to guano, we would name those superphosphates made by dissolving *unburned* bones in sulphuric acid. A preparation of this kind, well and honestly made, is, doubtless, very valuable. We are not aware what manufacturers even profess to use *unburned* bones, besides DeBurg, of Williamsburg, and Coe, of Middletown, Ct. Almost all profess to use more or less Peruvian guano in their preparations. The more of this and unburned bones the better, because these furnish organic matter. The sulphuric acid employed in all genuine superphosphates may serve a useful purpose, in attracting and retaining ammonia from the air, and in fixing what is added in the guano. Others attach considerable value to the phosphoric acid developed in dissolving the burned bones, which enter largely into the ordinary manufacture of superphosphates. We do not, from the considerations given in the first chapter of this series.

A new preparation is now being made in this city, (or at Barren Island,) by Mr. Schwager, from the remains of dead animals. So far as this consists of animal matter only, it will be found valuable.

The preparations of the Lodi Company have met with considerable favor among many farmers, and so far as they consist of unmixed, *unwashed* human excrements, they are valuable.

A Brooklyn Company has been recently organized, for the purpose of preparing the night soil gathered in that city. As our Brooklyn neighbors are not blessed with Croton water, to wash out the sewers, cesspools, &c., this Company have the opportunity to gather large quantities of very excellent fertilizing matter, which we hope they will prepare with care, and furnish to farmers at reasonable rates.

The American Guano Company are preparing to introduce new deposits from islands in the Pacific. If their cargoes are examined by outside, uninterested parties, and average samples are analyzed by men, who, like Prof. Johnson, of Yale College,

do not furnish analyses 'to order,' but who have a credit and position to maintain, we say, if the importations of this or any other company are submitted to such tests, every cargo found to contain a large proportion of valuable organic matter, will meet with a ready sale, and prove a blessing to cultivators. Care should be taken, however, to have every cargo tested.

Before passing to the consideration of 'home-made' manures, we will add a word in reference to plaster, lime and ashes. On many soils the common plaster of Paris (or gypsum,) has proved valuable, and as it is a cheap article, it may well be tried, except by those who have already done so and found it of little value. As an absorber of ammonia in the stable and manure heap it is always valuable, where an abundance of good muck is not at hand: and it doubtless serves a like purpose when sown broadcast upon a field.

The alkalies—such as lime, unleached ashes, and cheap refuse potash—are valuable upon cold, wet, sour land, especially where there is vegetable matter which is not in a state of decay. As above stated, any plant must be actually decaying before it can yield its elements to a new plant. All the heavier, damp soils contain more or less roots and vegetable matter, which need the aid of alkalies to assist or hasten their decomposition. On open, warm soils, lime or ashes are often injurious after a year or two, since they destroy the vegetable matter faster than it is used by the growing crops.

In our next we shall speak of the manner of applying manures, and of the treatment of such as are made on the farm.

MECHANICAL PREPARATION OF THE SOIL.

NUMBER ONE.

This is a most important subject to every cultivator of the soil, whether he be farmer, gardener, fruit-grower or florist. Much attention has been given to manures—little to the condition of the soil upon which they are to be used. A plowing, a harrowing, perhaps a rolling, and sufficient draining to avoid the necessity of boats to get around the field, have, as a general thing, been the chief mechanical treatment aimed at. We hope, and expect to be able to show, that more depends upon mechanical treatment than even upon manures.

As stated at the close of the manure article, on page 29, cultivation consists in preparing the soil as a medium for roots to grow in, and feeding or stimulating them with manures. We do not of course depreciate the importance of selecting proper seed, subduing weeds, harvesting, &c. Manuring is discussed in another series of articles. We are here to treat of the preparation of the soil simply as a medium for the roots of plants, which includes all mechanical manipulations, such as plowing, subsoiling, and the various methods of pulverization, together with means of securing the proper degree of moisture, or *draining*.

PULVERIZATION.—Jethro Tull supposed the

B. L. 1 inch

soil itself entered into the plant to make up its substance, and hence he advocated "plowing, plowing, plowing, hoeing, hoeing, hoeing." Though wrong in theory, his practice was not so far out of the way, after all. He advocated pulverizing the soil so fine that its particles could be taken in by the roots of the plant; we advocate the same thing as necessary to fit the soil as a medium for the roots to grow in. In order to understand this point, let us examine the roots of any plant, say those at the base of a corn or wheat stalk. If we pull up a corn stalk rudely, we shall see only a mass of roots varying in size from a goose quill, or larger, to that of a small needle. But instead of pulling the stalk by hand, let the whole soil, for a space of two or three feet on all sides, be taken up and set into a box, or on a board. Upon this let a very gentle stream of water flow for a number of days, until, without a perceptible current, it washes away the whole of the soil. If we now examine the roots with a magnifying glass, we shall find attached to every stalk an innumerable number of exceedingly small roots, by far the greater portion of them too small to be seen by the unaided eye. These minute roots or rootlets, and not the large roots usually seen, are the real feeders, or rather sap-gatherers of the plant.

The point then, is, that the particles of a soil must be sufficiently *fine* to furnish a medium for these rootlets to rest and grow in. If we examine an ordinary mass of sand, on a very sandy soil, we shall find it composed of small sharp-cornered particles, each of which would appear like huge boulders when compared with the actual size of the rootlets of plants that are to make their bed among them, if a plant be properly supplied with sap gatherers. A clay, or clay soil, on the contrary, is made up of a mass of infinitely small particles, so small that they are not perceived when the clay is rubbed between the fingers. It will readily be seen, then, that a clay soil furnishes the best bedding, so to speak, for the fine roots to rest in. When pushing their way through this fine material, they are not compelled to grow around the rocks (particles of sand). Further on we shall see why a mixture of sand and clay—in other words, a *loam*, is preferable to a pure clay; but let it be kept in mind that there must be in every soil enough *fine material* to furnish a bedding or matrix for the infinitely small rootlets—the water or sap-gatherers of every growing plant.

No soil is fully adapted for growing plants successfully, which does not contain one-tenth to one-fifth of this fine impalpable material. This point can be tested in any soil, by stirring it in a vessel with eight or ten times its bulk of water, letting it stand five or six minutes, and then pouring off the water into another vessel. The water should float off one-tenth of the soil, and deposit most of it, after standing entirely undisturbed for a day or two. This would be the first test we should apply to the soil of any farm we were about to purchase, or test with reference to its capability of success-

ful cultivation. The best methods of securing this fine soil, such as plowing, exposure to frost, adding clay to sandy land, &c., we shall discuss at length hereafter,* leaving it for the time being, to take up a topic demanding immediate attention, viz. :

DRAINING.

Supposing the soil to be of the right consistency as regards fineness of texture, the next most important point is to see that it is free from substances deleterious or *poisonous* to the roots of plants. Take the best prepared soil, and diffuse through it a small quantity of dissolved arsenic, for example, and few plants would survive. One of the most productive causes of infertility in otherwise good soils, is the actual presence of a substance or substances poisonous to plants, as we shall show, *draining*, in connection with plowing, &c., is one of the most efficient agencies in removing these poisons. Let us understand this matter.

Put a quart of water into a tin pan, or other wide, open vessel, and dissolve in this, say a fourth of an ounce of common green vitriol (sulphate of iron†). The water will appear clear at first. Allow it to stand exposed to the air for a few hours, and a brown reddish "scum" will rise to the surface. The same thing may be seen in "iron springs," and very frequently in the water oozing from a hillside. The water is at first clear, but when it comes out to the air, the brown scum rises. This scum is formed by the union of iron (in the dissolved green vitriol) with the oxygen of the air. All colored soils contain considerable quantities of iron, and some of this iron exists in the form of green vitriol, especially in unworked soils, or those not exposed to the air. Now as in the vessel of water, and as in the iron springs, the air has the power of destroying the green vitriol in the soil and changing the iron to the insoluble state (peroxide), in which it rises to the surface and floats as a scum.

But green vitriol is a poison to plants. It is soluble in water and is thus taken up in the sap, where by exposure to air it is changed within the pores of the stalk or leaves and retards growth. We must repeat, that all soils unexposed to the air contain more or less of this poisonous form of iron.

This brings us at once to the point, that it is necessary to admit *air* into the soil to destroy or change to a harmless form, the iron poison. Upon the surface this change is usually effected by direct contact with the air, but deeper down the poisonous matter remains. The growth of clover is an illustration. For a year or two it may flourish well, but being deep rooted, it sends down its fibres, and reaches the poison below,

* Those who have on hand our Fifteenth Volume, will do well to turn back at this point, and read the article at page 268, on "Improving Sandy Soils," and the continuation of the same subject, on page 294, under the head, "Why Clay Benefits Sandy Soils." Next read, "Clay for Light Land," on page 56 of the same Volume. See also, "Clay as a Manure," Vol. xiv., page 232. The facts and principles developed in the articles referred to will be discussed in the present series.

† Green vitriol is a preparation formed by dissolving iron in sulphuric acid (oil of vitriol), or more correctly, a union of sulphuric acid with oxide of iron.

which it sucks up, and the crop dies. On deeply cultivated (air penetrated) soils, clover will flourish for many years.

How shall we get the air into the soil? One method is to stir the soil deeply, by deep plowing &c., to admit air; this will be discussed hereafter. But however much we may stir the soil, the air cannot pass freely through the pores, that is between the particles, while the interstices or pores are filled with water. One of the first axioms the schoolboy learns, is, that "two bodies can not occupy the same space at the same time." It is hardly necessary to say then, that if we want the air to circulate freely in a soil, we must first free it from standing water. Further reasons for draining soils, usually considered dry, together with the modes, expenses and profit of draining, will form the subject of future numbers.

HINTS ON TOBACCO GROWING.

We are loth to publish anything to promote the cultivation of a plant so deleterious and so productive of wide-spread evil as we believe tobacco to be. But the interests of a large class of readers—a class recently greatly augmented, and their numerous calls for information, on this topic leaves us no choice in the matter. Though tobacco is grown in a few places in this State, and other Middle States, and in still larger quantities in Connecticut and Massachusetts, it forms a staple crop only in Maryland and Virginia, and the States lying immediately West. That seems to be the favorite belt of our country, where this plant attains its perfection, and where it can be grown with the largest profit. In these States it is a favorite crop with a large class of planters, and as it is usually in lively demand, it forms a reliable article on which to raise money, or to exchange for commodities not grown upon the plantation.

However hardy the plant, as it is only cultivated for its leaves, the whole process of growing, curing, and preparing for market demands more skillful management than almost any other crop grown as a staple in the country. In no crop, does so much depend upon the intelligence and skill of the cultivator. In no crop, is there more difference between a prime and an inferior article, and none in which the prime bears so small a proportion to inferior grades. We believe that the average returns, from the large class of plantations, may be more than doubled by skillful management.

SEED BEDS.

The first business after procuring good seed is to start the young plants. Seed beds may be prepared under glass or in the open air. Where the season is short and well advanced plants are desirable as soon as the frosts are over, it is better to start them in a gentle hot bed under glass. The open seed bed, however, is the more common method.

The place usually selected in Virginia, is some sunny exposure in new land, sheltered by woods. As soon as the frost is out of the ground in the Spring, the leaves are

raked off, and the roots are grubbed up. The whole space is then covered with wood and brush, two or three feet thick, and burned over. This gives an abundant dressing of ashes and fine charcoal, which is to be thoroughly worked in to the surface soil, clearing off all stones and roots. The ground should be laid off into beds about four feet wide, and the surface thoroughly raked, breaking all the lumps, and making the ground as fine as possible. The beds should be raised a little on dry land, and still more if it is moist. A pipe-bowl full of seed will be sufficient for sixteen square yards of bed. After sowing the beds they are usually covered with brush as a protection against frost. When the plants are up, a dressing of fine manure to quicken their growth, is of great service. As the whole success of the crop depends upon these plants, they should have careful attention, and be kept free of weeds. When the danger of frosts is over, the brush is removed, and the plants are followed with weeding and frequent stirring of the soil, until they are ready to be put out in the field.

It will be seen, that the essential things in this method are warmth, a seed bed of rich fine mold, and protection against frost. All these may be secured in the garden under glass with little expense or trouble.

TRANSPLANTING.

The plants will be ready for this operation about the last of May or first of June. They should be put out during a rain, or just after a rain has fallen. If the weather does not favor, the whole bed should be thoroughly showered with a watering pot, so that earth will adhere to the roots, when the plants are taken up.

SOIL AND SEASON.

The best tobacco is raised upon rich, light alluvial loamy land, or such as has been recently cleared and brought under cultivation. It requires a warm, mild season, with clear bright weather in the latter stages of its growth, to give it its highest aroma. It does remarkably well in the rich lands in the valleys of rivers. Almost the only districts in which it is grown in Newfoundland, lie in the valley of the Connecticut. Though these are the best localities for the plant, it will do well in almost any well drained land by thorough manning.

FIELD CULTURE.

The fields selected for this crop should be of the best quality, either newly cleared and virgin soil, or old ground, well furnished with fertilizers. A clover fallow is a good preparation for it. The ground should be previously prepared by fall plowing and by cross-plowing and harrowing, in the Spring so that it may be of the finest tilth. Lay it off into rows three, three and a-half or four feet apart, running each way. Every square thus made is to be scraped with a hoe, so as to form a hill, in which one plant is to be set. If the plant is destroyed by worms or drouth, it must be replaced immediately by another from the seed bed.

The cultivation to promote growth is much like that of the Indian corn. Unless the ground has been previously plowed deep,

it is particularly important that the ground should be worked as deeply as possible between the rows in the early stages of the growth of the plant. This will make the soil very pliable, so that the roots will readily penetrate it, and receive their appropriate nourishment. Deep plowing and cultivation are also a safeguard against drouths. All weeds should be kept under and the more frequent the tillage, other things being equal, the better will be the crop. No more ground should be planted than can be hoed or cultivated four or five times in a season. It pays as well as upon the corn crop. As the plant approaches maturity, care should be taken to keep so near the surface, as not to injure the roots. These will completely occupy the soil by the last of July.

PRIMING, TOPPING, SUCKERING AND WORMING.

The plant is not grown for its seed, like cereals, or for fodder like the grasses, but for its eight or ten broad leaves. So we have to interfere with its natural growth, deprive it of its flower stalk and small leaves, and force all the energies of the plant into the parts most desirable for market. As the plants begin to approach maturity they throw out on the top a blossom bud called a button. This must be removed with such of the leaves, as are too small to be valuable.

A shoot is also thrown out at the foot of every leaf stalk which must be carefully pinched off, so as not to injure the large leaf.

The topping is best done by a measure. If six inches of the top is to be removed, the topper takes a stick of that length, and applies it to every plant. Prune six inches, and top to eight leaves is a good rule for plants of the average height. If plants are unusually large in some rich spots in the field, they may be allowed to mature ten or twelve leaves instead of eight. If the plants are smaller, they should be restricted to a smaller number. The crop should be wormed, and suckered, at least once a week. In some seasons the tobacco-worm is very destructive, and constant vigilance is necessary.

CUTTING AND HOUSING.

Some three months after the plants are set out, they begin to assume the spotted and yellowish appearance which indicates maturity. We now approach a more difficult part of the management of this crop, where the closest attention of the cultivator is required. A few day's neglect, at this stage of the business, deprives him of his profits. To save a heavy crop, requires both energy and activity. The most careful hands should be selected for cutters. The plants are cut with a knife, near the ground, and are allowed to lie in the sun, for a few hours, until they fall or wilt. Correct account of the number of plants cut should be kept, so that the barn in which they are to be housed may just receive its complement.

The tobacco after it has fallen, is strung upon sticks and carried to the barn in wagons. Here the sticks are arranged so as to admit of uniform and gradual drying by artificial heat. The proper disposition of the sticks is a matter to be learned by experience.

CURING.

The day after the plants are housed, the barn is heated to about one hundred degrees of the thermometer. It is kept at about this temperature, for a day and a-half, or two days, when the tops of the leaves begin to curl. Now the planter must be on the alert. If he is careless, and the fires are made too hot, the aromatic oil passes off with the sap, and smoke, and he has a house of inferior tobacco, that he must sell at a reduced price. If his fires are kept too low his tobacco gets into a clammy sweat, and the oil escapes. There is much more danger of the former than of the latter evil. The fires should now be kept regular and steady, with a gradual increase of heat, so that in the course of forty-eight hours, the mercury will stand at 150° to 160°. It may be kept at or about that temperature until the tobacco is cured. Much of the difficulty in this process might be obviated by better constructed barns, and a heating apparatus. These might be easily arranged so as to avoid all the smoke and give the planter a complete command of the temperature, so that it should not vary five degrees from the most desirable point in the whole process of curing. The greatly enhanced price of a well cured article would soon pay for the extra expenditure, necessary to procure the right kind of barns and heating apparatus. The difference in price is apparent, when we consider that Connecticut Seed leaf tobacco is quoted at forty cents, wholesale price, for perfect, and Kentucky at fourteen to twenty cents. There is always a wide range of prices for tobacco from the same vicinity, depending upon curing, much more than upon cultivation.

STRIPPING, PRICING, &c.

After the curing process is finished, which usually takes two months, and which is indicated by a dry stem, the leaves are stripped from the stalk. Damp weather in the Winter is usually taken for this purpose, to avoid breaking the leaves. They should never be stripped until the main stem is thoroughly dry. Tobacco once hanked too wet cannot be dried, and if boxed too wet it will spoil.

While stripping, the leaves should be assorted into three different parcels; first, the sound, whole, fine, good colored, for perfect wrappers; secondly, the very light yellow, and that with the large holes and thick leaves, for imperfect wrappers; and thirdly, the balance for fillers. The imperfect will bring about one-half the price of perfect, and the fillers about one-fourth.

Each hank should contain about as many leaves, as may be clasped easily with the thumb and finger of a small hand, the butts all placed even, and then wound as near the end as possible with the binder.

The hanks should be carefully bundled in double rows, butts out, and tips in, and lapping. The bundles should be kept covered, until the butts are dry, and then boxed for market.

The high prices for tobacco which prevail will induce a large cultivation of this plant. It is the better qualities that are most in demand for cigar-making. Planters should rather seek to improve their methods of cultivation and curing, than to plant more acres.

7. 8 1/2



PIERMONT—THE RESIDENCE OF GEORGE PEPPER NORRIS, ESQ.
Brandywine Heights, near Wilmington, Del.

Above we present a view of the residence of Col. Norris, the Corresponding Secretary of the New-castle County Agricultural Society. In this office he is successor to the late Hon. Chauncey P. Holcomb, whose valuable contributions to the pages of this journal will be remembered by many of our older readers. We are glad to know the vacant Secretaryship is so well filled. The mansion represented here, is on the heights back of Wilmington, known as "Brandywine Heights." The Brandywine Creek enters the Delaware River near this point. Historical readers will recall the disastrous defeat experienced by the American forces, Sept. 11th, 1777, which took place a few miles up this creek, after which the British entered Philadelphia. From the above mentioned residence there is a magnificent view, embracing portions of the three States of Pennsylvania, New-Jersey and Delaware.

FURTHER OFFERS OF SEEDS—FREE.

In consideration of the general satisfaction expressed by a multitude of subscribers with our method of sending out the Sugar Cane Seed, we have determined to make free *distribution of seeds* a prominent feature hereafter. It is too late this season for us to obtain a sufficient supply of reliable seeds of *rare* plants, flowers, &c., but next Winter we hope to be prepared to offer quite a variety.

Whenever seeds are offered free by us, we trust no one will have the least hesitancy in sending for them, for we make no proposition of the kind which it will not be a *pleasure* to carry out.

Below we name some seeds which we can distribute, without charge, the present month, probably to all who desire them, and if our supply holds out, they will be sent also during the first week or two in April.

The varieties of Corn and Oats offered are not entirely new, but they have been proved to be *good* at least. In some places they are abundant, and can be obtained in quantities. But we have had many inquiries for them, and our object extends only to furnishing small quantities for experiment, or for producing seed for another year.

Before sending for either kind, please read the directions for "Seed envelopes" page 69.

N. B.—Any one sending for more than one kind of Seeds, will do well to provide separate envelopes, and mark the kind desired in each upon the margin.

THE KING PHILIP OR BROWN CORN.

Since publishing the article on this variety (on page 9), we have conversed with and received communications from a number of persons who have tried it, who think we did not speak of it in sufficiently high terms. Several who raised it last season, say that it greatly exceeded other good kinds in the amount of yield per acre. The stalk is quite small, and to one accustomed to the tall Western or Southern varieties, a field of this makes a poor show, at least until it is put into the crib. It may be planted much closer than other varieties, and thus produce a larger crop. This much is certain, it grows very rapidly, and ripens *early*, which in many localities are important considerations. Some think that in this latitude it should not be planted until June, in order to get a better growth of fodder. Several persons report that last year it ripened in about 90 days from planting. A Long Island farmer says he took off a crop of early potatoes last Summer, and then planted this variety of corn on the same ground, when it ripened well. As a general thing we should say, plant at the same time as other varieties of corn, but plant closer, say in hills 3 by 2½ feet, or 3 by 3 feet.

We think it worth a trial, at least by all who can readily obtain the seed. Several parcels have been sent out by the Patent Office, during a year or two past, and there must be considerable quantities in the country. We see it advertised in a few agricultural papers, including our own.

We have secured sixteen bushels, which we will distribute *free* in small parcels to such of our *subscribers* as desire it.

Those near by can call at our office. For those at a distance we are putting it up in packages of two sizes—in one as many kernels as will go in an envelope under *one* 3 cent postage stamp, and in the other size as many as will be covered by *two* 3-cent stamps. Any old or new subscriber wishing this will please forward a *ready directed* envelope of the ordinary size, putting on one or two postage stamps—according as they want a small or larger package. The kernels are large and heavy, and only a small number (about 25) can go at single postage rates.

SWEET CORN.

There are two good varieties of this, "Darling's Extra Early," and "Stowell's," which are worthy of very general cultivation. They have been described in our former Volumes, and are somewhat scattered over the country, but may be more widely distributed to advantage.

Darling's Sweet is quite early, small stalk and ear, and moderately productive. Its greatest recommendation is its early growth.

Stowell's Sweet—erroneously called Stowell's "Evergreen," yields a large stalk and ear, and is a good producer of both fodder and grain. It comes slower to maturity than the Darling, and forms an excellent succession to that variety, as well as being valuable for general cultivation. A small parcel of either, or both of these varieties, can be had free by subscribers on application. A 3-cent stamp will cover about 40 kernels.

WHITE POLAND OATS.

This variety has proved valuable for general cultivation. We have a quantity which weigh 42 lbs. to the bushel. They are not *rare*, though by no means generally known. We offer them on the same terms as above. A 3-cent stamp covers 250 to 300 grains.

GOOD ADVICE.—If you wish for a clear mind, strong muscles, and quiet nerves, for a long life, and power prolonged to an old age, avoid all drinks but water, and mild infusions of that fluid; shun tobacco and opium, and every thing else that disturbs the normal state of the system; rely upon nutritious food and mild diluent drinks, or which water is the basis, and you will need nothing beyond these things, except rest, and the due moral regulation of all your powers, to give you long, happy, and useful life, and a serene evening at its close.

Domestic economy is a science—a theory of life, which all sensible women ought to study and practice. None of our excellent girls are fit to be married until they are thoroughly educated in the deep and profound mysteries of the kitchen.

CULTURE OF BROOM CORN.

In reply to the inquiries of several correspondents on this subject, we would say that the selection of a soil adapted to it, and its proper preparation to receive the seed are of prime importance. It is sometimes said that any soil in which Indian corn will grow, will answer for broom corn. This is hardly true. Cold, stiff and wet land must be avoided, and so must that infected with the roots or seeds of weeds. Broom corn is naturally slow in its early growth, and needs a warm, rich and finely pulverized soil. Nor will it always succeed without a little help from some concentrated fertilizer, as Guano, &c. And after it has got a start, it can not contend with weeds, like Indian corn. If the farmer is so unwise as to plant in a soil full of "foul stuff," he must expect to labor hard and perseveringly to subdue the weeds, or they will subdue his Broom corn.

We say, then, choose a warm, rich, clean portion of the farm, alluvial land, if possible; manure, plow and harrow as for Indian corn. Take special pains to get the soil in fine tilth. Plant as early as possible—in this latitude, from the 1st to 15th of May—in rows three to three and a half feet apart, and in hills from one and a half to two feet apart. Pass a light roller over the hills after planting. About a dozen seeds should be planted in each hill, and at the second hoeing the plants should be thinned out, leaving only eight to a hill. Many experienced farmers use a little Guano, poudrette or ashes, to give the corn an early start and to keep it ahead of the weeds. This should be done with a careful hand, or the fertilizer will make a clean sweep of the brooms. The summer treatment of this crop is precisely like that of Indian corn. The horse cultivator should keep down every weed. At the last hoeing, the plants should be hilled up a little.

In September, when the heads are matured the crop should be "tabled." This is done by going through the field, row after row, and breaking down the top of each plant, so that it will lie in a horizontal position. The crop is then ready for harvesting. Before severe frosts come on, go through the rows and cut off the brush with a sharp knife, just above the upper section, and spread them in thin layers on the barn floor, or on piles of loose rails or poles, where the air can circulate freely through them. When thoroughly dried, they may be cleaned of seed by machines, many styles of which have been made for this purpose. A correspondent of the Cultivator describes a cheap instrument, which can be made by any farmer, as follows: Nail a plank, about three-fourths of an inch thick and ten inches wide, to a stationary bench, letting it (the board) run above the bench about a foot. Then take a saw and make teeth in the end of said plank, like those of a comb, and we are ready for operations. Take three or four straws at a time and draw them across the comb till they are clean, pressing a little with one hand, while you draw with the other, and so proceed until all your brush is ready for the broom-maker.

THE ONION—*ALLIUM CEPA*.

Though Mahomet put this vegetable under bann, and it is looked upon with suspicion in aristocratic circles, it is still a popular article of diet among all classes. Though the Mussulman may not enter his mosque when his breath is tainted with the infection of this plant, he thanks God and the prophet, that Friday comes but once a week, and on secular days makes up for his fast. Though the savor of onion is not *au fait* at a fashionable party,—parties are not given every night in the week,—and both beaux and belles indulge in the interdicted diet on their leisure days. If caught at home on cloudy days with unsavory breath, it indeed gives a shock to their sensibilities, and they make strong resolutions for the future. But alas for the weakness of human nature, such resolves are impotent, under the mighty spell of this vegetable. Its sorcery mingles in all French cookery, entering into the body of soups, and curling heavenward in its vapor, lurking in the dressing of fowls, and forming an indispensable dish in all roasts and boils. Half the stomachs in the city would not know that they had dined without onions. The world will have onions and pay for them.

This being the case, farmers and gardeners are anxious to raise them, and no crop pays a more steady and uniform profit than this. With the millions of bushels raised, the market is never glutted, and as a good quality of the article keeps well, it always brings a remunerative price.

VARIETIES.

Though these are quite numerous, the sorts cultivated among us are principally the *Large Red* or *Wethersfield*, *White Silver skinned*, *Yellow Dutch*, sometimes called *Strasburg* or *Flanders*, *Portugal* or *Madeira*, *Large Spanish*, *Potato* or *Under-ground Onion*, and the *Welsh* or *Tree Onion*. The first two are more generally raised than the others, they being the best known and commanding the best price. The white Portugal grows to a large size, frequently reaching five, six, and sometimes eight inches in diameter, but does not yield so many bushels to the acre, and does not keep as well. For the use of ships' crews and for export, the red is the best variety to cultivate. For home use, and the supply of the city and village markets, the silver skin and the yellow are the best varieties. They usually bring a higher price.

PREPARATION OF SOIL.

No crop pays better for a thorough preparation, and for high manuring. As a large part of the expense is for the labor of weeding and tending, it should be the aim of the cultivator to get a maximum crop from every acre that he devotes to this purpose. The wants of the plant are a fine deep light soil, through which the roots may easily penetrate. Accordingly, when a piece of ground has once been broken up, and cleared of stones and roots for this crop, it is common to keep it in onions for a long series of years. Ten and fifteen years are common terms, and we are told that fields in Wethersfield

have been cropped with onions for a half century.

Of course such constant cropping demands large supplies of manures, and where the aim is to raise six or eight hundred bushels to the acre, it will pay better than to have a succession of crops, the most of which will not pay a fourth part of the profit of onions. It is the best way to work in the manures in the Fall, and to turn them in with the plow twelve inches deep. The quantity of manure to be applied, and the depth of the plowing, must depend something upon the previous treatment of the land, and its previous condition. We would increase the depth of the plowing with the quantity of manure added. We have not so much faith in the application of special manures to this crop as some have. We have never found any difficulty in getting excellent crops with stable manure, and that of the pig sty, and such composts as we have been able to make upon our own premises. Any man who makes his own manures, is safe in plowing in thirty or forty cords of stable manure or compost, in the Fall, for every acre. In the Spring we would cross-plow, not quite so deep, and harrow, so as to make the tilth as fine as possible. Now, the whole ground is to be raked over with garden-rakes, and cleared of all small stones and clods. If top-dressings of ashes are used, we would put them on previous to harrowing.

SOWING THE SEED.

The old process of sowing by hand will not pay. The work is better done with a brush seed-sower, if you plant in drills, or with an onion-planter, if you plant in hills. Where this crop is much cultivated, they have a machine for the purpose, which drops the seed with perfect uniformity, two rows of hills at a time, covering and rolling at the same time. With a brush seed-sower, a man can plant about as rapidly as he can walk. With this it is easy to drill in with the seed any fine fertilizer like bone-dust, ashes, or superphosphate of lime. The latter, if you can get a genuine article, will give the young plants a good start.

CULTIVATION.

When the plants begin to show themselves, the push-hoe should be immediately run between the rows, to loosen the surface of the soil, and to cut off the springing weeds. If weeds have been kept under in former years, they will not be very troublesome. If they have been allowed to go to seed, the cultivator has a job before him. A week or ten days after the plants are up, the push-hoe should be run through again, and the rows be thinned and weeded. If you desire large onions, thin out to six or eight inches apart. If you want them smaller, and more of them in bulk, let them grow thicker. The usual number of hoeings in the season is four, but we think six would pay better than any less number.

KIND OF LABOR EMPLOYED.

A saving is frequently made in the expense of cultivation, by securing the labor of boys in weeding. The work does not require great strength or skill, and a smart lad

a dozen years old or more, will accomplish nearly as much as a man, at less than half the wages. Boys are sometimes hired from the city by the Connecticut farmers for a few months to tend this crop.

CULTIVATION WITH OTHER CROPS.

In Rhode Island, a favorite mode of cultivation in the field is to sow onions and carrots in alternate rows. The onions are out of the way by the middle or last of August, when the carrots have the ground. This root, it is well known, makes the most of its growth in the latter part of the season, and is left out with safety until the middle of November. In this way five or six hundred bushels of onions, and as many or more of carrots are frequently grown upon an acre. This is a good method, if we manure high enough to keep the land in good heart.

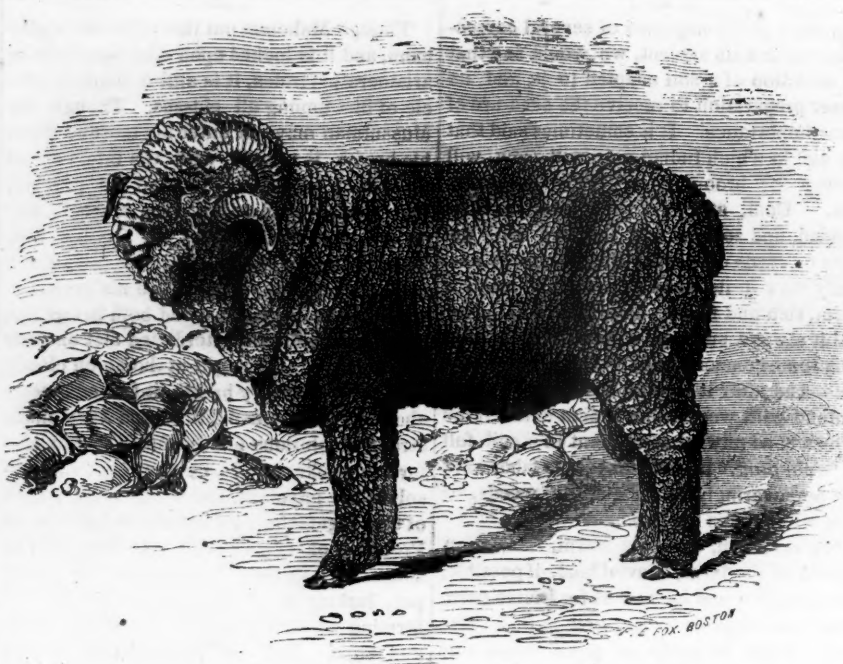
In this region, and all along the seaboard, sea manures are largely used for this crop, and are found to give excellent results. Sea-weed and kelp are frequently plowed in, in the Fall. A compost of marsh-mud and fish, made the previous Summer, and applied in the Spring, gives good results. Sea-sand spread upon heavy soils is found to be an excellent dressing for this crop. By the sea shore, a compost of fish and muck is probably the most economical manure that can be applied.

The mode of culture pursued by market gardeners is somewhat different. With them it is a matter of prime importance to get onions into the market very early, before the harvests of field culture are gathered. They take bulbs or pips of a previous year's growth, raised for the purpose, and set them out as soon as the ground opens in Spring. These mature very early, and are mostly marketed in June and the fore part of July. They are tied up in small bunches, with the green tops on, and bring two or three times the price of field onions. The ground is then devoted to some other crop, very frequently to late cabbages. The seed for making the pips is sown very thick, so that the bulbs cannot grow large. Potato and the top onions are also used for this early crop.

But this course can only be pursued by a few near cities and villages. The field culture may be indefinitely extended, and the demand is likely to exceed the supply for generations to come. It is an excellent crop for all farmers who live within an hour or two of tide-water, and have facilities to ship them to market by sloops and propellers. It is far more profitable than Indian corn, and pays better than any ordinary farm crop. A common yield on land that will grow fifty bushels of corn to the acre is four and five hundred bushels. A large yield is six hundred bushels, on better land. Eight hundred are sometimes grown with high manuring and extra care.

Horne Tooke was the son of a dealer in poultry, which he alluded to when called upon by the proud striplings of Eton to describe himself—"I am (said Horne) the son of an eminent Turkey merchant."

Always have your matches and lamp ready for use in case of sudden alarm.



FRENCH MERINO BUCK, TIPPECANOE.

The Property of Mr. J. Goes, Cleveland, Ohio.

ORIGIN OF THE MERINO SHEEP.

Columella, a Roman agricultural writer in the time of the Cæsars, states that the fine woolled Spanish sheep were originally imported from Africa. Some suppose that these sheep were of the same coarse hairy breed as are now known among the Arabs and along the African coast of the Mediterranean. But on physiological principles, this idea would be absurd. As well suppose that the Congo negro would be changed in a couple thousand years to a fair-faced European with straight blonde hair and blue eyes.

Wools of the finest quality are now produced in the districts of Tozar, Coffa and Nafta, and in the Nezzab, a district lying south of the main Atlas of Algiers. This wool is used by the Persians and others in the manufacture of those beautiful shawls and other fabrics which bring so high a price in commerce.

We have no recollection of ever seeing any of the sheep which produce the above fine wools, but if really *sheep*, and not *goats*, would it be too much to suppose that they were the originals of the Spanish Merino of our day?

COWS KILLED BY EATING "BARLEY SPROUTS."

Several instances have recently come to our knowledge of injury resulting from feeding cows with "sprouts" of malted barley with which are mixed other light matters, such as imperfect grains, &c., blown out in cleaning. We hoped ere this to have investigated the subject more fully, but not having time as yet, we present the following extract, and request further facts and particulars from our readers:

EDITOR AGRICULTURIST:—Having lost a very fine cow this winter, as I suppose from feeding barley sprouts, I send you a few facts relative to

the case, which may perhaps be of interest to some of your readers. I commenced feeding one peck of sprouts (scalded, and allowed to steep until cool), twice each day. After the first few days, the animal seemed to lose all relish for *this*, although she ate heartily of other kinds of food, and about this time began gradually to lose the use of her limbs (showing a wild glaring of the eyes), until at the end of a few weeks she became entirely helpless. She lived about five weeks after I commenced using this feed, and she had eaten in all about seven bushels. I have heard of several cases of the loss of milch cows from the use of this feed, and with precisely the same symptoms in every case.

WM. P. TOMPKINS.

SCARSDALE, N. Y., Feb. 20, 1857.

HINTS ON OX-YOKES.

To the Editor of the American Agriculturist:

For the benefit of farmers and all others who use oxen, I send a hint or two on ox-yokes. From experience and long observation on the structure of ox-yokes, I am certain that one-third of the service of these noble animals is lost, for the want of a better formed yoke; to say nothing of the discomfort they suffer for the want of one constructed on a different principle. Every one who will give heed to the following suggestions may obtain one-third more force and endurance from them, besides adding much to their comfort, and save himself an annual expense for whip-lashes sufficient to procure his Agriculturist.

All the ox-yokes in use have too narrow a bearing on the ox's neck. * * * These yokes are a disgrace to the age, a relic of barbarism, mere cattle-tamers or ox-killers, and should be used only for fire-wood. The kind of yoke needed is one with a *wide, flat* bearing. In no case should the bearing be less than *eight inches wide*, dressed entirely flat, with the edges moderately rounded. This bearing should not be notched on the neck, as we see in some instances, but should be circular between the bow-holes, and dressed roomy on the corners near the bows, so as not to wrench the neck when drawing in an indirect line. The

bow-holes should be six inches apart on the top of the yoke, and about seven and a half on the under surface of the yoke, where it bears on the neck. The object is to give room between the neck and bows sufficient to protect it from being wrenched in unequal drawing on rough surfaces and otherwise. And this room is ever needed, let the surface and drawing be what they may. To make a yoke of this kind, you must have a stick of timber eight inches square, of sufficient length for your yoke. Choose which side you please for the top of the yoke, strike a line the whole length of the stick in the centre on the top surface. This will be the range for the bow-holes. Strike a line across this seven inches from the end of the stick. Where this intersects the first line, the first bow-hole will strike. Another line as before, eight inches from the last, will mark the second bow-hole; then another line one foot from this for the staple; and one foot from this for the third bow-hole; and again eight inches from this for the fourth bow-hole. Bore from the top with a two-inch augur, making a run of one and a quarter inches right and left from a direct line across the stick; after which, dress it off in the most tasteful and durable manner, taking great care to make the bearing on the neck as above directed. Use two-inch bows, dressed perfectly round. You may work cattle in this kind of yoke all kinds of weather, if you choose, without ever making their necks sore, and you may work them six days in each week for months, if you choose, without their getting broken down, and being compelled to turn them out, as is often the case.

JOHN D. TEFIT.

OVER-FEEDING PLANTS.

A correspondent writes:

... I have found by experience that young fruit trees and some flowering shrubs were often injured by over-feeding. For many years I lost all my cherry trees. I planted them around my yards, and gave them the richest soil I could gather. They grew finely; some bore good crops. In a few years they split from the branches to the roots, and in a few years more they died.

I found in journals, that this splitting was supposed to be induced by the heat of the sun, for they generally occurred on the southwest side of the trunk, where the sun shone the hottest. I soon observed, however, that cherry trees never split when they grew on a poor soil; so when I discovered them to check, I at once removed all the soil for five or six feet around them, and supplied its place with loam or poor gravelly matter. Since then, not one has split, and I presume they never will. When cherry trees are large and old, they may be safely manured, for then their energies are spent in bearing fruit, and they grow but slowly.

Pear trees are more easily surfeited than cherry trees, but it affects them differently. When over-manured, the leaves coming out of the new wood at the ends of the twigs, instead of being one inch or more apart, come out in a cluster or bundle, and the limb ceases growing at once.

A few years ago I procured a fine young pear tree, and wishing it to grow and bear as soon as possible, I planted it in the range of the lowest point of my barnyard, so as to receive the drainings of the manure. The new leaves all over it came out in thick bundles or whorls. I immediately removed all the earth from over the roots and filled the space with yellow loam, and turned the drain from it. In two weeks the new wood shot out and put forth its leaves, nearly two inches apart, and made a fine growth. I once manured an apple orchard of seventy trees, and every twig

threw out the same whorls—wood ceased growing. The tips of all dried, and I lost one year's growth. So I find trees as well as men and other animals can be over-fed and surfeited.

JAMES FOUNTAIN.

JEFFERSON VALLEY, N. Y., Jan. 25, 1857.

SPAYED COWS.

To the Editor of the American Agriculturist:

It is now nearly thirty years since a gentleman in New-Hampshire called the attention of the public to the subject of *spaying cows*, for the purpose of having them produce an uninterrupted flow of milk during their lives.

This gentleman's communication was based upon facts—communications made to him by a Mr. Wynn of Natchez, and his own observations while staying with Mr. Wynn, who had two cows then in milk, which had been operated upon about three years before, and he stated to this gentleman that they had never varied in the quantity of milk during that time, except when such variation was caused by a change of food, and gave it as his opinion that they would continue that flow of milk as long as they lived.

I have since that time seen it stated in some agricultural paper that the full flow of milk not only continued, but that the *quality* was much improved.

If the foregoing statements are correct, how desirable it would be for families which are so situated that they can keep but one cow, to have her in this situation.

Mr. Wynn recommended that the proper time for performing this operation was about three weeks after producing their third calf, as they then, as a general rule, produced their greatest quantity of milk, which quantity might be continued, with proper food, as long as the cow continued in good health.

Mr. Wynn stated that he was induced to make this experiment upon his cows by the perusal of English magazines which contained accounts of the plowing matches in the southern counties of England, where most of the prizes were awarded to plowmen who worked *spayed heifers*.

Many of your readers may recollect the high encomiums that were published in agricultural and other papers a few years since, respecting a drove of young *beef cattle* taken to the Brighton market by George Shaffer of Scottsville, Monroe county, N. Y. They were pronounced the *finest* drove of young *beef cattle* ever driven to that market, and they were *spayed heifers*.

N. GOODSSELL.

NEW-HAVEN, Feb. 17, 1857.

We have ourselves no experience in *spaying cows* for milk, as described above; as it has not yet been adopted, so far as we know, to any extent in the large London and other dairies in Great Britain, we rather doubt its success in the *long run*. It would be economy undoubtedly to all who only wish to keep cows for their milk, as the production of calves to such is attended by considerable trouble and loss. A friend of ours in Massachusetts, is now making an experiment with *spayed cows*. We have written him to ascertain his success and hope to get an answer for publication.

As to *spaying heifer calves* for growing up to fatten, this is quite common in Europe, as well as pigs and lambs. *Spayed heifers* for work are not so common, as they do not grow so large as oxen and are therefore not capable of doing the rugged heavy work generally demanded of cattle.

THE CHINESE SUGAR-CANE SEED—HOW TO ECONOMIZE IT.

To the Editor of the American Agriculturist:

As you have taken some interest in distributing the seeds of the sugar-cane, and given the general direction to cultivate similar to Indian corn, I beg to add a word or two.

I found from my own experience, and that of others, that where the plant has space and the ground is good and well manured and cultivated, it tillers out from the root, and each seed will produce from six to a dozen canes. By planting from one to three seeds in a hill, and thinning out to one plant, there is a great saving in seed; and as seed is scarce and high, those who have an ounce will find they can plant 1,400 hills by putting one seed in a hill; and as it will tiller out according to the strength of the ground, an ounce of seed, judiciously planted, and cultivated with care, will produce from 5,000 to 15,000 canes, that will average 1½ pounds each, and produce 1½ to 3 or more ounces of seed.

The ground should be dug or plowed *deeply*, and the hills three feet apart each way. The plant requires light and air to perfect its saccharine juices.

J. C. THOMPSON.

TOMPKINSVILLE, Staten Island, Feb. 16, 1857.

REMARKS—We do not advise using the seed so sparingly. It is not certain to "tiller," though we have seen several stalks from one seed. Four or five seeds, or more, should be put in a hill. We have sent to every applicant, (some 15,000 so far,) about 300 seeds. These will plant 60 hills, with five kernels in each, or a drill 60 feet long with five grains to the foot. It is scarcely worth while to economize the seed beyond this in small experiments, and for extended culture we advise to put 6 or 8 seeds in a hill, which will only require about 1½ pounds to the acre.

COOKING DRIED APPLES.

To the Editor of American Agriculturist.

You were kind enough to compliment my apple sauce and apple pies, and request me to send a note of the process of making them. The sauce was made by simply boiling the dried apples soft, and rubbing them through a common colander, which gives a nice pulpy mass, and separates all remnants of cores, skins, and "hard spots." The sauce is then seasoned to suit the taste. A little cider boiled down one half or more, in Autumn when new and sweet, adds to the good flavor of any kind of dried apple sauce.

The pies were made of the same sifted sauce, seasoned and put into raised crust. A very good crust, and one which is far more digestible and nutritious than that literally full of fat (shortening,) is made as follows: Dissolve half a teaspoonful of soda in a tea-cup full of sweet milk. Take enough flour to thicken the milk to a stiff dough, mix well with it a teaspoonful of cream of tartar, and a table-spoonful of butter or lard. Knead the whole well together, roll thin, put in the sauce and immediately bake in a quick oven. If you think the above particulars will be new to any of your lady readers, you are of course at liberty to print them.

HARRIET.

Taste is as well displayed in placing the dishes on a pine table, as in arranging the folds of a damask curtain.

Women dread a wit as they do a gun; they are always afraid lest it should go off and injure some one.



HOMESTEAD OCCUPIED BY MR. B., SPRING OF 1856.



SAME HOMESTEAD OCCUPIED BY MR. M., SPRING OF 1857

THE RURAL HOME.

Few spots are happier, or more cosy, at this season of the year than the rural fireside. He who forms his views of it from the recollections of fifty years ago, or even of twenty, has very poor conceptions of the place. There is really no class that has shared more largely in the general prosperity of the country, or that has been more benefitted by the investigations and discoveries of science. The old-style farm-house, with its broad-mouthed fireplace, its pine table, bench, wooden-bottom chairs with high backs, is superseded in many parts of the country, and well-built, substantial houses in modern style have taken their places. The old kitchen, which formerly served almost all purposes, except that of a dormitory, has been succeeded by a well-furnished parlor and dining-room, and by a kitchen that boasts more comforts than the whole of the old house afforded. The cooking apparatus is complete, from gridiron to tea-kettle, and the various processes of the culinary art are now conveniently done and regulated by the clock that ticks on the mantel-piece.

And when the meals are over, and the labors of the day are done, a clean, carpeted sitting-room, well warmed and ventilated, invites the farmer's family to the enjoyments of the fireside. There is light enough upon the centre table, no longer dispensed from a single tallow candle, with wick of spun tow, that only served to make the darkness visible. The farmer, and the farmer's wife and children, have a taste for reading, and the religious, miscellaneous, and agricultural papers are fast becoming the necessities of farm life. No class digest more thoroughly what they read. There is no fierce competition in their business overtaxing the brain. At this season of the year there is comparative leisure, and the suggestions of agricultural papers are turned to good account in forming plans for the coming season. These plans pertain to all the departments of husbandry, and are eager-

ly participated in by the female part of the household. It is cheering to see the progress of floriculture, and to notice how the flower border gains upon other parts of the garden as the younger members of the family come upon the stage. The agricultural matter that is now sown broadcast over the land, through the columns of the religious and political, as well as agricultural journals, is bearing fruit. There is a change for the better coming over the rural districts. New attractions are thrown around farm life, and many more of the sons and daughters of farmers will be induced to abide by the old homestead.

THE TWO PICTURES.

In looking over our portfolio, we chanced upon a pencil sketch, made a year since, of one of the homesteads in 'our neighborhood.' Knowing that an energetic person took possession of the premises last summer, we despatched 'our artist' to procure a present sketch. The two are given above, and tell their story. It is scarcely necessary to call the attention of the reader to the dead lambs in the trees, the woman walking in the mud 'ankle deep,' and the other walking high and dry upon a simple plank or board laid down, the respective conditions of the animals, the crow after the carrion, the tools, the grindstone, the manure and compost heaps, the fences, the yard, &c., &c. The two pictures will bear studying.

DEAD LAMBS—HOGS.

To the Editor of the American Agriculturist.

I have found it! The mystery is solved! You asked me "why farmers so often have that delectable ornament near their sheep pens, of a tree hung with dead lambs?" It had puzzled my brains to account for it, so I just called on neighbor Thomas, of whose opinion I have a high regard, as you already know.

He says "they hang them upon the trees to be out of the way of hogs, for if on the ground, in reach of the swine, they being carnivorous, especially the 'land-pike' breed, would soon 'devour them.' "All right," I said, "let them do it."

"But," said he, "they would soon acquire a relish for the dead ones, and commence a wholesale slaughter on the living—that's the reason they are hung out of their reach on trees and stakes, an eyesore and a puzzle to many a passer-by. 'Why,' I queried, 'do they not bury them around grape-vines and fruit trees? They are very rich manure.'" "In the first place," he replied, "the ground is generally frozen, and then again, I doubt if the farmer who displays so much of poor management as to have dead lambs at all, has a grape-vine or fruit tree near by to put them around." "I think," he continued, "if sheep are properly sheltered, and fed with grain a little time before they have lambs, very few will need to be 'treed.' And again, hogs have no business to be running at large Winters, if at any season. They should be kept up; there is no grass they can get, and the manure is wasted, besides all the inconvenience and trouble they occasion." S.

NORTH HEMPSTEAD.

EARLY POTATOES—HOW TO RAISE.

Take a box or barrel (a broad box is best), and cover the bottom with equal parts of stable manure and earth, upon which place the potatoes two or three inches apart, and cover with six inches of the compost. Proceed in this manner until the box or barrel is filled. Next dig out a space in the side of your manure or compost heap which is fermenting with a moderate heat, and insert the box and cover with the manure. The warmth will be sufficient to start the potatoes, and it is possible too much so, in which case remove the manure from the top, and water if too dry. They will send out a mass of roots which will so adhere to the compost in which they are planted, that when the land is prepared, and the temperature will warrant putting in the open ground, they may then be taken out singly and transplanted with ease and safety, especially if the whole mass is previously wet. Potatoes started by this method will be from two to three weeks earlier than those planted in the ordinary manner.

Patience is a tree whose roots are bitter, but the fruit is very sweet.

Garden, Orchard, Lawn, &c.

SEEDS—GET THEM READY AND PROVE THEM.

Go into any well conducted seed store at almost any season of the year, and you will see tumblers or other vessels in a warm place, and partly filled with water, with a wad of cotton on the top of it. An examination of these vessels, will show you sundry seeds of various kinds lying upon the cotton or imbedded in it, where they are not actually in water, but are supplied with moisture constantly drawn up from the water below the cotton. In this arrangement the seedsmen are trying the vitality of the seeds they have to sell.

Now this same process, or one equally good, and with the larger grain better, should be put into practice at once by every farmer and gardener. How often is the labor and other outlays upon a whole field lost by the failure of seed to vegetate. But a single hour's time will suffice to test all the seed for a whole farm. Take corn and turnip seed for example.

Select from the whole mixed mass of seed to be used, say fifty to one hundred grains, if the total quantity be large, and plant these in soil placed in earthen pots or boxes, and keep them moderately moist and warm. A very few days will show whether the whole seed, or what proportion of it, will vegetate. It is always better to make two separate trials of each mass of seed, in order to guard against the accidents of wrong temperature, moisture, &c. For small parcels of costly seed, the trial need not be made with more than a half-a-dozen taken at random from the whole mass. If the common stone-ware flower pots are not convenient, any other vessel or box may be used. The ordinary earthen table bowls may be used, but it is always best to have a hole in the bottom through which water may be taken up by capillary attraction (be sucked up) to the surface.

The tumbler of water with cotton upon the surface will, in most cases, suffice for sprouting seeds, but if they fail in this way, at least two trials in earth should be made before a final condemnation. It is a sufficient test if the seeds merely start a little germ. The south window of a cellar, or better, that of a warm sitting-room, will furnish a good place for setting the testing vessels. Of course, if you have a hot-house, that is still better.

We deem the above a matter of no little importance, especially when seeds are purchased of dealers upon whose integrity you cannot confidently rely, and even then it is well to try their seeds, as well as those of your own production, since the germinating power is often lost by overheating, or otherwise in transportation, as well as during storage in the granary. The trial will cost next to nothing, and one can plant and sow with far more confidence and pleasure if absolutely certain that his seed is *alive*. Let this matter be attended to *now*, so that time

may be had to replace any seed which chances to be defective.



No. 1.

No. 2.

CHAPTERS ON STRAWBERRIES.

CHAPTER III.

We propose now to explain, by reference to the above pictures, the appearance of the different kinds of strawberry blossoms. No. 1 represents a blossom deficient in the male organs, or as they are called *stamens*. No. 2 is a good representation of a perfect blossom. A mere glance at these will be sufficient to reveal the difference. No. 2 presents in the centre, or rather around the centre, small thread-like filaments, with little knots on the ends, called *anthers*; these contain the fine yellow dust called *pollen*, which, falling upon the centre of the blossoms, as seen in No. 1, fertilizes them, and causes the fruit to swell, which otherwise would soon become black and dead. No. 2 is a perfect blossom, having both sexual organs. Plants having such blossoms are sometimes called hermaphrodite, but more usually *staminate* plants, to distinguish them from plants bearing blossoms, such as No. 1, without stamens. These are called *pistillate* plants. For plants bearing both kinds of blossoms we have no name. They might be called *composite*. We shall then, when speaking of plants bearing perfect blossoms, that is, both stamens and pistils, use the term *staminate*. When speaking of plants having blossoms destitute of stamens we shall use the term *pistillate*, and when referring to plants bearing both kinds of blossoms, we shall use the name *composite*.

Nearly all the most esteemed and productive varieties of strawberries originated in the United States within the last twenty years, have been *pistillate* plants, while on the other hand, those originated in Europe during the same time, have nearly all been *staminate* plants—the reason of this has been already referred to in a previous article. While these have been very productive in Europe, they have been as unproductive in the United States. The cause of this difference is partly owing to the superior cultivation pursued in Europe, and partly to the difference in climate.

In our climate the *pistillate* varieties are certain to set their fruit if they are impregnated by the pollen from *staminate* plants, while the *staminate* varieties, especially those imported from Europe, have been found, under *ordinary* cultivation, to set their fruit very poorly. These circumstances gave rise to a very decided preference for *pistillate* varieties, and also induced the opinion that no *staminate* variety would, in our climate, produce a full crop of large fruit. This opinion seems to be losing

ground since the production of a *staminate* plant by N. Longworth, Esq., of Cincinnati, which bears a good crop of large fine berries, every blossom perfecting its fruit.

That other plants, having perfect blossoms, and bearing uniformly large fruit and abundant crops, will be produced, we have no doubt. Such kinds will, if produced, be preferred to *pistillate* plants, inasmuch as they will not need any other varieties to make them fruitful. Many object to the trouble of keeping two kinds in the same bed, as the more vigorous kind will be sure to overrun the less vigorous. On this account it is preferable to keep the *staminate* and *pistillate* kinds in separate beds.

Among staminate varieties, we think that Longworth's Prolific and the Large Early Scarlet, are the most desirable. The latter will succeed better under an indifferent cultivation than almost any other kind, yet none will better repay generous treatment. The only objection is that the fruit is small. It is the earliest fruit that ripens, and supplies the New-York market with its early strawberries. As a market fruit it possesses some fine points. The fruit is among the very best as to flavor. Its color is a beautiful light scarlet, and it does not become dull by exposure as many other kinds do. It is also solid, and bears carriage well. Longworth's Prolific is a much more showy berry, but it requires more care in its cultivation. Rich ground, made deep and mellow, and plenty of room, are required for success in the cultivation of this strawberry.

Among the *pistillate* varieties that are offered for sale, we think the three best are Hovey's Seedling, McAvoy's Superior, and Burr's New Pine. Hovey's Seedling has held its high position for twenty years, and is not yet surpassed, if equaled by any other variety, if we take into consideration all its qualities. In size it is not, in our opinion, equaled by any other. It may not be quite so productive as McAvoy's Superior but it is more symmetrical in form. In point of flavor some will prefer it and some will prefer McAvoy's. It is a rather dry berry, and not very high flavored. McAvoy's is more juicy and more sprightly. When eaten with cream and sugar, Hovey's is, in our opinion, preferable, but when eaten simply with sugar it is too dry and insipid while McAvoy's, treated in this manner, is juicy and lively. We prefer to eat strawberries with simply sugar, and therefore select McAvoy's in preference to Hovey's.

Burr's New Pine is one of the most delicious strawberries ever raised in the United States, especially for eating out of hand. The plants are a little feeble in growth, and the fruit is rather small under ordinary cultivation. There is another *pistillate* variety much esteemed by market growers—the Crimson Cone. This is a very hardy kind, productive and beautiful, of small size and rather acid.

Next month, we shall treat of practical operations in planting, &c.

A dirty kitchen and bad cooking have driven many a one from home to seek comfort and happiness somewhere else.

THE GARDEN CULTURE OF PEAS.

One of the first seeds put in the ground by all good gardeners is the pea. Some even anticipate the Spring, and put in the early crop in the Fall, before the frost shuts it up. The seed is not injured by the frost, and any open spell in winter may be improved to plant this crop. It starts at a low temperature, and it is not uncommon to see a row of green peas peering through the snows of March. Unless actually frozen, they do not appear to be injured by the snow. As they are the earliest of the annuals that come to the table, so they are among the most wholesome and warmly welcomed of all the products of the garden. The season of this vegetable begins very early in this city, being brought by steamers in immense quantities from the South, and continuing until all appetites are sated, and it is a drug in the market. The sources of supply are from so wide an extent of country, and the article is so perishable, that there is not unfrequently a glut, and large quantities are sold at a sacrifice. But market gardeners in the vicinity of the city have an advantage over those who ship them from a distance, in always being able to offer a fresh article, and these always sell at the top of the market price. No vegetable suffers more from long keeping. The delicate aroma and much of the sweetness are lost the second day after picking.

But most of our readers are principally interested in raising this vegetable for their own tables, and it is to pea culture in private gardens that we will direct our remarks.

VARIETIES.

There are several hundred upon the lists, many of them so closely allied in all their characteristics, that none but an amateur can tell the difference. For all practical purposes, a half dozen varieties are better than a hundred. Though we have tried numerous varieties, we seldom cultivate more than three for our own table. Among the early varieties that we know to be good are the Extra Early May, Early June, Early Kent, Washington, Charlton, Emperor, and Prince Albert.* The Dan O'Rourke, sent out from the Patent Office, is a very early and excellent pea, but all cannot get the seed of it this season. The others are accessible at the seed stores.

About a week later than these is the Champion of England, which we prefer to any other pea we have ever grown, early or late. The vines are a little taller, and the pods much heavier, and full of a very rich, delicious pea. The peas shrivel as they dry.

The Marrowfat are later still, and of these, there are numerous varieties, all excellent.

CULTIVATION.

For the early varieties, we select the south side of a wall, or a southern or eastern slope, where they will have the full

* The list here given differs a little from our article last Autumn, as this is the experience of one of our associates. Of the varieties experimented upon last year, we had the misfortune to lose most of the seed during the Winter.

benefit of the sun, and be protected from the north winds. We sow them in double drills, about six inches apart, and the peas one or two inches apart in the drill. We sow with a brush seed sower, making very rapid work. We leave four feet space between the rows. For convenience in picking, and for cleanliness, brush are desirable, but are not generally used by market gardeners, as they increase the labor and expense. We usually trench the land where we plant peas, working in large quantities of stable manure or compost. It is one of the lime plants, and is much benefited by applications of lime to the soil.

If we wish to prolong the bearing of the vines, we plant the peas in a trench as for celery, and fill up gradually as the plants grow. This causes them to send out more roots, and the vines continue green much longer. Whatever method is adopted, the ground should be well manured, and the crop followed up with frequent hoeing and scuffling.

SUCCESSION.

There is a difference of three or four weeks in the time of maturing with different varieties. If these are all sown in March, they will give a good succession from June till August. Another sowing of the same varieties in May will give a still later succession, and will continue this vegetable quite as long as it is coveted. During the dog-days the vines are very likely to be struck with mildew, and if we desire peas at this season, they should be planted on the north side of a wall, where they will be kept as cool as possible.

COOKING PEAS

is a matter quite as important as growing them. Nine-tenths of all that are eaten in the city are worthless before they go to the pot. They should be cooked as soon as taken from the vines, and be boiled in no more water than is necessary to cook them. Then with roast lamb and new potatoes, they are a dish fit for the human stomach, to be eaten with thanksgiving, and a relish.

Buist says, "they are considered as a pleasant and nourishing food, having the character of purifying the blood and correcting scorbutic humors."

IMPROVING VARIETIES.

This can be easily done by carefully saving the largest and earliest pods every year for seed, and planting only these. Most men only take what is left for seed, and thus their varieties degenerate every year. Every gardener should see to the saving of seed himself. Certain rows or parts of rows should be left for this purpose. Long, plump, early pods, are the most desirable. They should be dried thoroughly, shelled, and put in a bag in the seed-room for the next year.

Do not use a top dressing, or guano in the drills when you plant, unless you want to lose your crop.

Skillful cooking is as readily discovered in a nicely baked potato, or a respectable Johnny cake, as in a nut brown sirloin, or a brace of canvass backs.

BASIL.

Pray what is Basil? We never saw it, never heard of it, and should not know how to use it if we had it. What is the use of raising basil if the cook (which in most cases means wife) does not know what to do with it? That is precisely the question that we set out to answer.

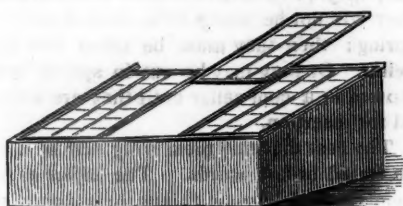
Our English cousins, as well as the French, have a great variety of pot herbs, and little delicacies for garnishing dishes, which make them not only look tastefully, but taste well, and thus add attractions to the chief meal of the day. These herbs are known in this country, but are confined mainly to our city markets, and to the gardens of gentlemen of wealth in the country. Parsley, celery, eschalots, chives, thyme, summer savory, basil, &c., are rare things in a farmer's garden, and quite possibly some of our readers have never seen them, and would not know the use of them.

Now we hold that farmers, the feeders of the world, have as good a right to be well fed as any other class of people,—that a perpetual diet of salt junk *alias* corned beef and pork, with potatoes, turnips, and cabbage, is not doing the clean thing by the noblest of all callings. There was an article in the Tribune this winter, on "Cooking in the Country," which told a great many unpalatable truths, and called forth a large amount of female indignation and correspondence. We shall not repeat the folly of that writer by assailing the *quality* of anybody's cookery. We assert that salt junk and cabbage, however well cooked, lacks *variety*, and that farmers may as well have a stew, a roast, a bake or a soup, as any of their city cousins.

Now, to do up the meats in the most attractive style, and to have the dinner accompanied with pleasant memories, we must have the pot-herbs, and the garnishing, and then with a few hints from the cook-book, we will put a country dinner against the best thing they can get up at the Astor or the St. Nicholas. A farmer has as good a right to a mock turtle soup, or to the genuine article without any mockery, as any Alderman. Hence the use of pot herbs in general, in the garden, and of basil in particular.

There are two varieties of this herb in use, sweet basil, (*Ocimum Basilicum*.) and bush basil, (*Ocimum Minimum*.) Both are natives of the East, and are held in high esteem by all cooks trained in the schools, for their delicate flavor. The peculiar flavor of mock turtle soups is chiefly derived from this valuable pot herb. They flourish best in a rich light garden soil, with full exposure to the sun.

Sow the seed in a gentle hot bed, about the 1st of April. When the plants are up, and large enough, say about the 1st of May, prick them out in rows twelve inches apart, and six inches in the row. The plants are rather tender, and easily affected by the frosts. They should be cut early in autumn, tied in little bunches, and hung up for winter use. A small bed will furnish a continuous supply through the summer.



HOT BEDS—HOW TO PREPARE.

Hot beds require attention during the first of this month. They are sometimes made by excavating the earth for the heating materials, though these are more frequently placed upon the surface. If stable manure alone is used, it is better to remove but little earth, but if leaves and tan are employed, and the ground selected for the bed is sufficiently dry, we prefer digging a pit two feet deep, and of any desired size, say twelve feet long and five feet wide, to be covered by four sashes, each three by five feet. If the ground holds water, a drain should be made from the pit, and stones, rails, or bones placed at the bottom. It is of the first importance that the heat-generating materials be kept dry after making the bed, else failures will be the result.

Pits are usually dug in the Fall, because the frost is seldom out of the ground sufficiently early in the Spring. The sides are sometimes built of brick, and kept for the purpose of forcing, year after year.

Having chosen a locality in a situation sheltered from cold north winds by buildings or evergreens, or by a board fence, with a free opening to the South, prepare the pit as above, and if leaves were collected for the purpose last Fall, put in a layer, say four feet in thickness, and cover with six inches of spent tan bark. Spread over the whole three inches of dry earth or mold, prepared as below, and a gentle, uniform temperature will be maintained for several successive months.

The more common method, however, is to place, either within a pit or upon the level ground, about three feet of stable litter which has been shaken out and kept under cover for ten or fifteen days. Square this up one foot larger each way than the size of the frame to be used, and having beaten down and leveled it off, cover with six inches of prepared earth. This covering should be prepared in the Fall, by mixing well-rotted turf with one-third decomposed stable manure. Garden soil, well manured, will answer this purpose if the prepared earth can not be had. The bed should not be planted as soon as made, but covered with the frame and sash, and left for a few days. Examine often, and if the heat appears too great, admit air by the sashes.

FRAME AND SASH.

The frame to be set over the compost may be made of one-and-a-half or two-inch pine plank, nailed to four upright posts, or, what is better, nail the side pieces only to the posts, and fasten on the end pieces temporarily with screws, or hooks and staples. This will allow of their being taken apart and packed away when not in use. Groove the sides and ends together when two planks

in height are used, and let the frame be fifteen inches deep upon the front or south side, and two feet upon the back, beveling the whole so that the sash will fit closely. If the frame be five by twelve feet, insert three cross pieces on the upper side, three feet apart, for the sashes to slide upon, and nail narrow strips, say one inch square by five feet long, on the center of these cross pieces, and also upon the outer edge of each end of the frame itself, to keep each sash in its place, and make close joints. The sashes are usually made by sash-makers, with a strong outer frame, and middle rails running lengthwise only, that the water may run off freely. Every thing being complete, and the beds having stood for a few days until the rank hot steam has passed away, the ground may be used in the following manner, or in any other way desired: Divide the bed under each of the four sashes, which will give eight spaces. In these may be planted cabbages, tomatoes, egg-plants, celery, cauliflower, cucumbers, spinach and lettuce, scattering a little radish seed over the whole. The radishes will be large enough to pull out before interfering with the other plants.

Examine the bed daily, and if the heat appears too great, admit air by raising the sashes a little upon the back side. Water moderately, if too dry, and if at any time the heat appears to decline, bank up about the bed with stable manure, which may be renewed as necessary. If severe weather should occur, the whole may be covered with mats or straw for better protection.

After the plants have put out their third leaf, the sashes should be raised a few inches every mild day to air them. This is especially important towards the latter part of their growth in the bed, as the heat and steam would soon scald or burn them up. The plants thus started are of course to be transplanted to the open ground as soon as the season will admit. With a single frame, and a very little expense and trouble, a large number of plants may be started so early as to gain three to five weeks over the usual garden growth.

PRESERVING FRUITS, &c.

We are now daily enjoying nice tomatoes, peaches, cherries, raspberries, &c., which taste just as fresh as when they were picked last Summer and Autumn. These we have kept in the "self-sealing tin cans," part of which were purchased from Messrs Wells & Provost, and part from Messrs. Taylor & Hodgett. The fruits were put up according to the directions we gave last year, which will be repeated at the proper season. Very little sugar was used, and but little cooking. From a second year's experience, we are satisfied that this mode of keeping fruits that are not too sour (acid,) is the cheapest, most healthful, in short the best we know of. We hope the manufacturers of the cans will make their arrangements to sell them at the lowest possible price, (the cost was rather too great for extensive use last year,) and then prepare to supply "the million." This notice is unasked, and

wholly gratuitous. We merely speak for the benefit of our readers.

WHEN AND HOW TO PRUNE.

In our last number we presented some general considerations on the importance of pruning trees: we now proceed to answer the inquiries, When and how to prune them? Our remarks at this time will have special reference to the apple and pear.

There is learned "authority" for pruning at every season of the year. Loudon says, "the period immediately before, or commensurate with, the rising of the sap, is the best." Forsyth recommends "April or May." Kenrick, "that interval between the time when the frost is out of the ground in Spring, and the opening of the leaf." Cole says, "the Spring is the worst season," the Fall is the best, and moderate pruning may be performed from June to December. Downing recommends "a fortnight before mid-Summer as the best season on the whole, in the Northern and Middle States." Barry says that, with some exceptions, pruning should be done "as soon as the severe frosts are over—say the latter end of February and beginning of March." A witty clerical horticulturist is said to have given his advice to prune "*when your tools are sharp*"!

So far as practice goes, the argument is certainly in favor of Spring pruning, full three-fourths of all this work being done at that season. This is a time of comparative leisure for the farmer and gardener. The bark of trees is then less likely to start under the orchardist's boot, and less likely to peel off where a limb is removed. We do not admit the argument of some writers, that as the sap in early Spring has the strongest ascending impulse, and is designed to promote growth of wood, wounds made at this season will soonest be healed. For this sap is not in a condition to heal wounds until it has been elaborated by the leaves of Summer. When large limbs must be taken off, Summer is, on the whole, the best season, provided the work is done carefully, and the wound covered with grafting wax or shellac dissolved in alcohol. If small trees are pruned late in the Fall, or in mid-Winter, (at the North,) the ends of the shoots shrivel and die, and the terminal bud is injured, if not killed. If large trees are pruned then, the stumps often decay, unless covered, and rarely heal over for many years. If pruning is done in mid-Summer, upon healthy trees, the wound heals rapidly, because the descending sap is then in a fine condition for depositing woody fibre. Light pruning may be safely recommended for this season. Well would it be if trees were so managed when young as not to require the amputation of large limbs at any subsequent period; for certainly it is a great waste of time and of the tree's forces, to grow a crop of limbs only to hew them off again.

The young apple tree and standard pear need little pruning except to remove straggling and cross branches; and even this can

often be anticipated by a timely *pinching*. The dwarf pear tree needs more attention, in order to give it proper shape, and to promote its fruitfulness.

When a young tree is taken from the nursery, it is often destitute of the lower branches needful to give the tree a pyramidal shape. The first thing to be done is to head back the tree in Spring, so as to develop branches within from one to two feet of the ground. If any push out lower than this, they should be rubbed off. This first severe pruning is of the greatest importance. If neglected, the sap will push up into the top of the tree, leaving a naked trunk below, thus defeating a prime object in the culture of dwarf trees. Use the knife, then, faithfully at first; get a broad, strong base for your pyramid, and the remainder of your work will be satisfactory. During the first season, branches will push out, on a healthy tree, from ten to fourteen inches long. If they become too thick, the weaker should be rubbed off, so as to economize the forces of the tree, and to regulate its shape. Select the most vigorous branch near the top for a leader, and check several branches below it, by a slight pinching of their extremities in Summer, so as to give a greater advantage to the leader, and to the branches at the base.

Early in the second Spring, all the young shoots should be cut back; the lowest to within six or eight inches of the trunk, the next above four or five, and so on, tapering to the leader, which should be cut back only about one-half its length. During the second Summer, the young shoots which start from the horizontal branches should be pinched off, after they have made a growth of two or three buds—*always excepting the leader* of each branch, which should be allowed to grow the whole season: in the following Spring, it should be cut back to three or four buds of the new wood. This checking of the side shoots causes an accumulation of organizable matter in the short branches, and converts them into fruit-spurs. The leading shoot of the two should be allowed to extend itself upward from the topmost bud, and to send out side branches. If any contiguous shoot tries to dispute for pre-eminence with the leader, it must be subdued by pinching.

In the third Spring and Summer, the pruning should proceed in the same way. The lower branches should be moderately cut back, the higher more closely, and so upward, preserving a regular, tapering outline, terminating in a single shoot at the top. The leaders, both of the side branches and of the tree itself, should be allowed to grow during the Summer so as to extend the tree on all sides, and to use up the superabundant sap. The shoots on the side branches should be checked, so as to favor the production of fruit-buds. All weak and cross branches should be removed whenever they appear. This general treatment having been pursued six or seven years, the tree will have attained a desirable size, and will require no further pruning except to keep it in good shape and vigor. If it becomes too fruitful for its

permanent health, the fruit-spurs must be thinned out: if it runs too much to wood, the branches must be pruned more severely, and the roots may be pruned, if it can be done skillfully.



If pear trees, both dwarf and standard, were more generally trained as pyramids—thus clothing their trunks with foliage from top to bottom—we believe they would be less liable to the diseases now so common, and so fatal to them.

The mechanical operation of pruning deserves more notice than we now have space to give to it. Prune "when your tools are sharp," and never when they are dull. In cutting off large limbs, make the incision as close to the trunk or main branch as possible, without mutilating it. To prevent the peeling of the bark, the limb should be cut off partly from the under side. To expedite the healing of the wound, the whole should be pared off smoothly with a sharp knife, and then covered with grafting wax or other weather-proof mixture. In pruning small branches and stems, the incision should be made as close to a bud as possible without removing any of the wood belonging to it. The knife should enter below the bud, and come out just at the top of it. When it is desired to give the tree a more spreading habit, prune to a bud on the outside of the branch: when a more upright growth is wanted, prune to a bud on the inside. When a gap in the tree needs filling up, prune to a bud on the side towards the gap. In pruning the leading shoot, cut each successive year, to buds on the opposite sides of the tree: this will keep the tree erect.

In conclusion, we say, make pruning an intelligent operation. Never lop off a branch at random. Be able to give a good reason for every wound you make on a tree. Lindley well says: "If well-directed, pruning is one of the most useful, and if ill-directed, it is among the most mischievous operations that can take place upon a plant."

CUTTING SCIONS.

Few persons are already so well supplied with the really excellent new varieties of cherries, plums, apples and pears, that it will not be for their interest to add somewhat to their stock. We stop not now to enumerate those varieties: our readers, perhaps, are already well-posted in relation to them. But we wish to remind them that the season for engrafting is nigh at hand, and that scions must be secured soon or it will be too late.

Scions may be cut at any time between the fall of the leaf in autumn and the starting of the sap in spring. If cut in the fall, they must be buried in dry, sandy soil on the north side of a fence, and a mound of earth drawn up over them to throw off the water, or place in a cellar. If cut in winter

they may be buried in a snow-bank, where they will not be likely to be thawed out till spring; then they must be taken into the cellar. Or they may be cut in spring, and stowed in a cool cellar until they are wanted for insertion.

The best mode of preserving scions may be stated in few words. The *object* is to keep the buds dormant; and to accomplish this, we must keep the scions cool and moist, but not wet. If taken into the cellar, they should be laid in a cold corner, and covered with damp sacking, which should be sprinkled as it becomes dry. They may also be kept in moss, saw dust or sand. If sand is used, care must be taken that it be not very dry, or it will absorb too much moisture from the grafts. If very moist, it will be equally destructive, and at best, it will dull the knife in grafting. We have always succeeded perfectly in using damp sacks, or moist saw-dust.

Scions may easily be transported by express, from one part of the country to another, by packing them in damp moss. At the present low rates of postage, they can also be sent by mail, if they are first wrapped in oiled silk. When they are to travel a great distance, it is well to dip the *cut ends* in melted sealing-wax, wrap each graft in oiled silk, tie them all together with thread, surround the whole with a little cotton and enclose in an envelope. We have known packages so prepared, to be sent from the extreme North to the extreme South, and though a month on the journey, they arrived in perfect order. If, by any accident, scions become dry in the transportation, they should be buried in common garden soil, as soon as received; in ten days they will become as plump as ever.

We will just add, that they should always be cut from healthy and vigorous trees, the wood being of the preceding year's growth, firm and well-ripened.

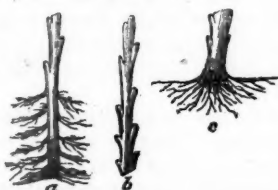
GRAPE CULTURE—NO. III.

BY WM. CHORLTON.

During this month, in all localities excepting the extreme North and Northeast, the soil will be in a fit state for working, and when so, no time should be lost in getting ready for planting. Having mentioned the injurious effects of humid and low situations, we may further show the necessity for thorough drainage. If the land for vineyard culture has an open, sandy, gravelly or stony underbase, where the water passes freely away, there will be no further preparation required than deep trenching, or surface plowing, following with a subsoil plow that will penetrate at least twenty inches,—if deeper so much the better; indeed it ought to go down to the natural drainage. If the subsoil is stiff and heavy, the situation is inferior for the purpose, and artificial drains will more than repay the cost of making. With regard to the grape generally, no permanent success need be expected without attention to this most important consideration.

Many persons think that the older a vine is before planting, the sooner they will have a full crop of fruit. I have frequently talked with those who were hard to be convinced, that a three or four-year-old vine of large size would not set and ripen plenty of bunches the same season it is

planted. Here is one of the great mistakes that is often made. The grape-vine has a large volume of root, all of which is required to support the extensive development of the upper growth, consequently it is easily seen that, unless the vine be established in the earth, and there is a corresponding amount of feeders, the fruit and branches must lack nourishment. For the vineyard, either cuttings or one year old plants are best, and for the graperies such plants should *always* be preferred. It is better to have an abundance of healthy roots, with a small well-ripened stem, than the reverse. For out-door culture, the plants may be arranged at the distance of five feet each way; and for the graperies three feet, in a row, and along the inside front of the house. In the former case, when cuttings are used, or if the plants have been raised from cuttings, there will be roots emitted along the buried part of the stem, and the planting should be equally deep for the sake of retaining the whole of them, and also enabling the vine to have a main reservoir to feed from in dry weather; but in the latter, deep planting should always be avoided, and more particularly if the borders be not raised above the ground level, or if they are made of over rich materials, for the roots, under such circumstances, are very subject to rot. The annexed three illustrations will show our meaning in this respect:



(a) The rooted plant for the vineyard, or out-door culture.
(b) A cutting prepared and planted for the same.
(c) The rooted plant raised from a bud, as it should be planted in the graperies.

It is expected that pruning has been completed before this time; if not so, do it without delay. When pruning is deferred until late, the vines will "bleed" freely, and, although this does not always materially injure them, it nevertheless prevents a vigorous burst of the foliage and young shoots, which retards the ripening and injures the quality of the fruit for the season.

COLD GRAPERY.

The vines may remain covered until the latter part of the present, or, in late situations, the beginning of next month. The house should be kept cool by having the ventilators and doors open at all times, except during severe frost. After the covering is removed, clean the house and make all neat. Fork the inside beds, and give a thorough syringing over the whole house.

FORCING HOUSE.

This is the most trying month in the season where grapes are being forced early, as, generally speaking, the roots are in a cold bed, and, notwithstanding there may be a sufficient covering on the surface, still the soil lacks the genial heat which a summer sun imparts to it, while at the same time the branches are exposed to a temperature and atmosphere suitable to their healthy action. This difference of condition and artificial position, tends to the development of the plant, it is true, but the expanded leaves have not the requisite supply of organic matter flowing through them, which causes them to remain more than usually thin and watery. The weather too, at this time, is fickle, one day being mild, cloudy and moist, while the next may be dry, cold and windy, with severe frost. These sudden differences require the greatest care and watchfulness, else after a day of severe weather the leaves will suddenly wilt and be destroyed when the sun's

powerful rays strikes them. During these cold days do not open any but the top ventilators, and these no more than is necessary to keep the thermometer at 85°; dampening the floor, sides and ends of the house, so as to secure a humid atmosphere, which will assist the circulation of the sap in the leaves by absorbing the moisture through the stomata, or breathing pores, on the under side. Be careful to keep a steady range of temperature, from 55° to 60° at midnight, and 70° in cloudy, with a rise to 85° on sunny days. Break off all superfluous growing shoots, and pinch out the overplus bunches of fruit blossoms, leaving only one bunch on a spur, unless the number of bunches are deficient upon the vines. Tie all needful shoots to the wires in regular order, and in a neat manner, as fast as they attain a sufficient length, but not sooner, as they are very brittle at the first start.

SECOND EARLY HOUSE.

We will presume that the forwarding of this house has only been going on some two weeks. Proceed as advised for commencement last month. And here I wish to correct an error which occurred in the last number. In the advice for forcing, and the house in leaf at the time, the sentence reads: "Where forcing is just commencing, 60° is quite enough." This was intended to apply to the highest range of the thermometer at midnight, when the vines are in a growing state:—such a night heat would materially injure any crop, if long continued at the commencement of forcing. The right temperature will be found at the bottom of the same paragraph. Do not be afraid of using water freely over the vines, and all the inside surface of the house. There is no danger of the inside bed becoming too wet if the water be distributed judiciously. So soon as all the buds are well and equally burst, tie the vines in their proper position for the season, and do not be in too great a hurry to increase the heat, but let nature have her own way without undue excitement.

RETARDING HOUSE.

This part of grape culture has not yet become as general as it ought to be. The intention is to keep back or retard the ripening of the fruit, so as to have it fit for use during the winter months. This is a great desideratum, as during the winter a higher price is obtained for grapes than at any other season of the year. Those who can afford to keep their own competent gardener, and have the conveniences for the purpose, can enjoy this luxury individually, but there are many others in all our large cities, to whom cost is no object, providing such rarities are to be had. At present the demand far exceeds the supply. Instead of fine black Hamburgs, or others of like quality, there is nothing for sale but the White Lisbon and Black Portugal, two inferior kinds, which are rendered still worse by long keeping, and the sea voyage from Portugal and other parts of Southern Europe. It is to the commercial grower that we would more particularly speak in this case, for there is a fine chance for those to make money who will take it up. Those who may wish to have a house of this kind will do well to choose a western aspect, as the object is to prevent the vines from commencing growth early, and the advantage of this position will be recognized, as the sun will not have much influence until the beginning of summer. As we proceed, hints will be given for this specialty. In the mean time, keep the atmosphere dry and cool, but if there be any grapes still hanging do not let the frost in.

OUT-DOOR CULTURE.

If the vines have not been neatly tied to the trellis or stakes, do it at once. When the branches are left to be dashed about by the equinoctial

gales, or even handled when the buds are swelling, they are usually injured. Remove all the *really* loose bark and examine if there be any chrysalis or eggs of insects in the crevices, if so, destroy them; and when there is only a limited quantity of vines, and time can be spared, it makes sure work if both branches, and trellis should be washed over with the mixture mentioned last month. Near a dwelling-house or other building this ought to be done every season, for in such places the insects are often more numerous, and have better chances of protection through the



winter. Have an eye to neatness and finish, and as soon as the weather will permit fork over the surface, working in the manure applied in the Fall as a mulch, or other dressing as is necessary at the same time.

The accompanying figures show two other methods of training for the hardy kinds. No. 1 is best adapted for vineyards; (a) the bearing branch

es; (b) shoots of the present year, and intended for fruiting the next season; (c) stakes.

No. 2 makes a neat form along the sides of a



path. The branches may be increased in length from year to year, the lateral growth being cut into two eyes at pruning time.

PLANTING AND GRAFTING TREES.

RAINY-DAY RAMBLES NO. III.

As I walked through the orchard with neighbor Thomas, he called my attention to some straight and symmetrical apple trees, that were indeed beautiful. He said, "we cannot take too much pains with our trees, in forming their heads and trimming out all unnecessary branches. I go over mine every year and cut out the useless shoots, before they grow large and make a bad wound in removing." Well neighbor, how are these trees set out, I queried? "In the first place, get the most thrifty trees you can procure. I do not like them less than one inch, nor much over two in diameter, near the ground. Larger trees are difficult to transplant without injury, and the growth is more retarded. I have known much smaller trees to exceed them in size, in five years. We have numberless varieties, and with careful selection, thriftiness of growth, excellency of quality and productiveness may be united in one. Many of our best varieties for the dessert are such slow growers and shy bearers that it is best to reject them. In setting them, don't do as my neighbor William who had a man hold the tree while another marked the circumference around the roots with a spade, and crowded the tree after the fashion of a post. Don't be afraid of digging the hole too large. Take the surface soil, or sod, and put it in a heap, then dig out a foot or so of subsoil, unless it be a hard pan which will hold water, and cart it off, or throw it away. Then replace the surface earth or sod to form a bottom for the tree to rest on. Plant so that the tree will be of the same depth, after the earth has settled, as in the nursery. Now if there is a well-rotted compost prepared beforehand, or any wood-

pile dirt free from chips, or molds richer than the surface soil, use it around the roots. Nothing but loose friable earth should be placed near them, as the dirt must fill up every cavity, and press against the surface of each root. If planted in the Fall, they do not so much require this attention, as freezing and thawing will bring the earth in contact with them.

If you have nothing better, throw the mold, without the sod, around the roots and a top dressing of a little coarse manure, or any substance that will keep the ground moist during the summer, will be of great service. By no means allow grass, weeds, or any kind of grain but buckwheat or corn, to come near young trees." Upon my asking if he had a rule about the height branches should be allowed to grow, he replied, "People differ greatly in this respect. In the rich regions of the West, where trees arrive at maturity in a few years, they may be allowed to start a few feet from the ground. Where trees grow luxuriantly, the branches shoot up strong, more like a cherry tree; but with us, in the vicinity of New York, the branches would soon stretch out horizontally, so that we could not come near them with a plow, and even droop upon the ground when bearing." A nurseryman from Maine advised me never to let them branch higher than four feet, and another experienced fruit grower said seven feet was the proper height. So we differ, and varieties differ too. Some will grow with low heads in spite of all our care. Young orchards should always be kept plowed, or the ground dug about the trees. As to crops, potatoes, turnips, &c., are undoubtedly the best, but who can have a lot of ten acres covered every year with such crops? It takes too much time and labor to tend them properly. Buckwheat is perhaps the best sowed crop, as the ground is stirred when the roots require it most, and the quick growth of the plant soon shades the surface from the burning rays of the sun. But corn, manuring the ground every year, keeps the earth loose by the repeated plowings it requires, and upon the whole suits me best. If the trees are quite small plant a row or two of potatoes near them to prevent shading by the corn, and when large, only plant outside of the limbs." Now, neighbor, I want to know what kinds to set out? "Ah, that is a difficult question. There are a few kinds like Rhode Island Greenings that are good in almost every locality, while others, are much better in the neighborhood where they originate. I was told when I set out my orchard to plant but very few kinds, but I don't believe that doctrine. I want three sorts of apples to continue through the year. First, sweet apples, for those that like them best, and for baking; acid apples of large size for culinary purposes; and high-flavored sub-acid, of medium size, for dessert. To have plenty of these ripening in succession through the season requires several varieties, especially as our tastes vary. I would recommend for this vicinity early Harvest, sweet Bough, and Summer rose, as early apples, followed by Summer Queen, Golden Sweeting, and American Summer Pearmain. For Autumn, Fall Bough, Willis, and Jersey Sweet, Cream apple for dessert, and Fall Pippin for cooking. The Willis Sweeting (or pear tree lot), and Cream-apple, originated near here, some 75 or 100 years ago, and I have yet to see them equalled for their respective uses. For winter dessert, the Marigold, Golden Apple, Hubbardston Nonsuch, Rhode Island Greening, and Spitzenburg, Ladies, Moores, Tolman Sweeting for sweet apples, and for culinary purposes, Titus and Red Pippin, L. I. and Roxbury Russet, Baldwin and Green Seek-nofurther. The Fall Pippin is a splendid old

variety, but has been a shy bearer for several years, and perhaps the Gravenstein will take its place. The Newtown Pippin, although a native of Long Island, scarcely pays. It should be planted only on rich soil. The yellow Bellflower, Vandervere and Swaar are uncertain bearers at present. I find that early ripening apple, as well as pear trees, require, from the rapidity with which the tree forces its fruit to perfection, a better attention and a richer soil than late ripening sorts. I would always like to dig up my trees if I could, for where many thousands are sent away every year from the nurseries, it cannot be expected they will take as much pains as is necessary. In taking up trees, first dig a trench a good distance from them, with the spade facing the tree, to cut off the large roots then turn the edge of the spade to the tree and lift the earth carefully cutting the small fibrous roots as little as possible. We want a larger root for bracing trees against the wind, while the smaller ones gather moisture and substance from the earth. In the Spring the head should be thinned out, but I do not approve of shortening in the branches all around. The strongest and best buds, which produce the largest leaves, are on the limbs of last year's growth, and if these are removed the inferior ones remaining produces small sickly leaves insufficient for that design in nature's economy, for which leaves are formed.

To avoid the ugly wounds, which the most careful sometimes make while plowing orchards with horses, the two or three furrows nearest the trees should be completed, either by oxen or with a one horse plough with a short swiveltree.

People differ greatly as to the distance of planting trees apart. If we want to shade the ground so that it will not require plowing when the trees arrive at maturity, 20 feet is the least distance, and then some of the large spreading varieties will be too close to yield good fruit. It would be well when planting out an orchard, to set these thrifty growing, spreading varieties by themselves, and much further apart than upright early kinds. Forty feet is the extreme distance for those who wish to raise crops, and pasture the ground among trees. Almost every fruit-grower has a notion of his own about fruit, and I can give no better advice than to ask the counsel of the best informed among your neighbors and persevere good works on fruit trees."

I noticed a fine row of cherry trees growing by the road, and queried his mode of raising them. "The mazzard cherry grows abundantly in our vicinity about the fences and in the woods. These are transplanted when about ten feet high, and from one or two inches in diameter, and when they become well rooted, generally in two years, they are grafted. It is considered a difficult thing to make grafts on large cherry trees live, but with proper care, they are nearly as certain as other kinds of fruit trees.

I cut the grafts before the buds swell, and place them where they will keep moist. When the sap has started and the buds commence swelling, saw off the top, or the limbs as the case may be, taking care that the stock is not too large, and cut the edge of the stock, so as to make a smooth cut. A jagged edge will heal over badly on any tree. Then with a thin-bladed knife, keen as a razor, made a slit down the stock an inch and a-half long, cutting through the bark, and only reaching the wood. Make a downward cut a little below the top of the stock across this slit, after the manner of tongue grafting. Next slope one side of a graft to fit in length the first cut upon the stock, and after making a cross slit to match the one on the stock, insert it in the cut against the wood, sliding it down until the tongues

of the two shall unite. If the stock is large, place two or more grafts around it, allowing the bark to remain, to keep the graft in its place, until ready to tie. They may be tied by cotton cord or any other string, if care be taken to cut the string when the scions are firmly knit, but it is better to wind round a strip of paper or old thin muslin covered with grafting wax, so that the growing graft may rupture its bandage.

There are two necessary things to success in grafting cherry trees, viz., a thin and sharp knife and a perfect exclusion of air from the point of union. Where the bark is exposed by incision, mortar is the most effectual, tied on with cloth or rags. It may be covered one-eighth of an inch in thickness, with grafting wax put on while warm, but it must be well done and wrapped around with paper or cloth to prevent the sun melting it off.

S.

QUEEN'S CO., L. I.

CULTIVATION OF THE PEACH.

To the Editor of the American Agriculturist:

Perhaps nowhere in the State of New-Jersey are there more good peaches produced than in the county of Morris. Her gravelly hills and red shale elevations, with railroad facilities to two of the best markets on the seaboard, offer extraordinary inducements to cultivators. New-York is reached, during the picking season, in three or four hours from Morristown (including stoppages), by an express train on purpose for the accommodation of this business.

All along the line are myriads of baskets awaiting transportation. They are picked by hand the afternoon before, and put up in baskets of about three pecks each, (some baskets fall short of this quantity), covered with muslin, and delivered next morning on spring wagons to the various depots.

In the matter of growing, picking and putting up for market, many of our Jersey peach growers have acquired good proficiency, and are deserving of much credit. At the same time, in the matter of peach growing, as in every other business, there have been signal failures. I have no faith in those writers that fill the public ear continually with the bright side of things only, and that oftentimes greatly magnified. I say, therefore, that we have failures. It is not every well planted orchard that arrives to a perfect bearing state. Mortifying failures and losses often occur, and this is one of the principal points I propose to discuss, hoping, as I proceed, some useful information may be given that will interest, if not instruct, the many readers of my friend the Agriculturist.

I have purposely commenced this subject, perhaps at the very point where some would naturally suppose me to leave off. But not so. The orchard is the place to test the value of fruit grown for market. Some varieties of fruit are excellent for the table, and yet not a profitable crop for market. Thus the novice in fruit culture is oftentimes into gross errors. Take one single example. The Morris White, in our locality, is a well-known and popular variety—white, as its name purports, very delicious, and excellent for the table. Yet this peach is not much grown or relied upon for market. There are objections to it that preclude the possibility of its becoming profitable in market culture. It is oftentimes a shy bearer, more easily affected by the extremes of weather or unknown causes, and will not bear transportation as well as many other varieties. Its beautiful white appearance, when fresh, is "too pretty to last," the least bruise giving it an unsightly appearance which injures its sale. The diseases of the peach tree are, with many culti-

vators, but imperfectly understood. Great and serious losses occur from this cause, and men complain that they cannot raise peaches. But I am persuaded that their failures are mainly owing to an imperfect knowledge of the proper treatment of the peach, and only wonder that they succeed even as well as they do. The various causes that influence these results; we propose fully to consider in turn.

Some make but one trial of peach culture, and failing in this, they infer that disappointment is always in store for them. This is no mark of a great mind, neither is it any proof that peaches cannot be profitably raised. When I meet with such instances, I am always reminded of a Dutchman I once met in Pennsylvania. When offering him some peach trees, he said he would not mind buying one, if he "tot it woot liff."

And now, Mr. Editor, as I am nearly to the end of journey No. 1, let me invite your readers to consider these few remarks only as a sort of introduction to my topic, and that having simply announced my proposition, I will endeavor in my next to satisfy their curiosity in a measure to know something of the peach culture of New-Jersey.

WM. DAY.

MORRISTOWN, N. J.

PLANTING ORNAMENTAL TREES.

For the American Agriculturist:

Trees are the most beautiful and attractive objects with which nature has kindly endowed the face of our fair earth, yet how few set any value upon them—to cut down and sweep hence is rather the wish and practice. Some cannot spare the time to cultivate them, many will not allow the expense, while others are in doubt as to the *how* or *when* to do it, and so, from one cause or another, the trees do not go in the ground. We will offer a suggestion or two which may be useful, especially to some of the three cases named.

First, we may say, study the habits and adaptabilities of your trees. They should be well furnished, that is, clothed to a low point with leafy garniture. They should be healthy, vigorous and erect, though in picturesque scenery, they may be ascrooked as a ram's horn. The soil should be well prepared and free from stagnant water, and it will be found advantageous to mulch any tree with litter. We deem Autumn, when the ground is in better condition, the best time to transplant deciduous (leaf-shedding) trees. They then have time to settle before mid-Winter, and in Spring are ready to start at once into growth. The Winter and Spring rains assist in packing the soil well round the roots. For evergreens we prefer May, June, or even July. With these we must use great caution in removing, for if the small fibres of the roots are laid bare, they receive an injury which may prove fatal to the tree. Be careful to remove a goodly quantity of soil with them.

The elm is a very picture of elegant and refined gracefulness, but if we would see it in all its magnificence, it must stand out prominently and alone. The American and the Scotch, or Wych elm, are the best trees for us, the latter particularly, since it is not subject to the ravages of insects, and it assumes a pleasing variety of character. The weeping Scotch elm, with its pendulous fan-like spray, is an interesting tree. The elm requires good rich soil, rather moist, and bears transplanting well.*

The Magnolia is a charming native, and with its large showy foliage, smooth trunk and fragrant blossoms, is ever a favorite. The leaves of *Magnolia grandiflora*, which is an evergreen, are about seven inches long, with a beautifully polished sur-

face; the flowers are pure white, and quite large. This tree often reaches the height of 60 feet in the Southern States. The *M. Macrophylla* has leaves, in its youthful days, which often measure three feet in length. The *Cucumber Magnolia* will grow 80 feet high, and has flowers of a bluish white, sometimes merging into a yellow tinge; they are very large. *M. Cordata* flowers very abundantly, and frequently twice in the year. The Magnolia should be sheltered, and planted in deep rich soil.

The *Liquidamber*, or sweet gum, is a beautiful tree, very like the maple; it retains its clean, dark glossy star-like foliage through the burning heat of mid-Summer. But it is in Autumn that the most glorious effects are visible; then it is dressed in a lively of brilliant tints, ranging from vivid orange to deep purplish red. It requires a rather moist soil, is easily transplanted and grown, little or no care being required; it is a native.

The Tulip, or white wood tree, is a very rapid growing and beautiful tree when standing alone. Its clean trunk, thick-perfumed cup-like mottled flowers, and rich glossy foliage, make it worthy a place in the garden, and the more so from the fact that its leaves are too bitter to furnish food for insects. It wants careful removing and rather rich soil. It is also a native.

The Virgilia, or yellow wood tree, of Kentucky, is an exceeding pretty one, of the medium size, and when in bloom, with its pendulous fragrant flowers, yellowish in hue, is really an ornamental object; the foliage in Autumn is of a beautiful yellow. It luxuriates in a light rich soil, protected alike from the extremes of heat and cold. The roots should not lie exposed.

The grand objection to these trees, with many, lies in the fact that they are *natives*.

* PRICES OF TREES.—We take from Messrs. Parsons & Co.'s catalogue the retail prices of the trees mentioned above, which will serve as a guide to those purchasing elsewhere. These trees are of moderate size, good habit and vigorous growth. Very large trees are more expensive.—[Ed.]

Elms, 50 cts. each, except the Scotch Weeping Elm, which is \$1. Magnolias—*Macrophylla*, \$2; *Cucumber*, 50 cts.; *Cordata*, \$1 to \$2. *Liquidamber*, 50 cts.; Tulips, 50 cts.; Virgilia, \$1.50.

"YOU DON'T KNOW BEANS."

To the Editor of the American Agriculturist.

I will grant, Mr. Editor, that this caption, contained in your February number, is applicable to myself, and yet I know a bean, and one that, in my estimation, is altogether superior to any that you have described for making that world-renowned dish, "*succotash*." Not to be able to make that dish in perfection, detracts from the character of any woman who claims to be a Yankee housekeeper. The bean I refer to I have long known, and cultivated, as the Neapolitan. It is a small pole bean, of a dash purple color, with the habits of the cranberry. The pods, which are the desirable part for use, should not be picked until they have changed their color, from green to a light straw color, and become semi-transparent, and as large as your finger, to be cooked without breaking, when they become soft and pulpy, without anything fibrous about them, and communicate more of the bean flavor to the *succotash* than when Lima beans are used. I will give my method of

MAKING SUCCOTASH.

Take Old Colony sweet corn, *quantum sufficit*, (I prefer this variety to all others cultivated, both for Summer and Winter use.) Let it be cleared of the silk, then with a sharp knife cut off the tops of the kernels; then into another pan press out all the milk by turning the back of the knife, and pressing it from stem to tip, leaving all the skins

of the kernels upon the cobs; let the bean pods be added and both boiled sufficiently, and season to taste, and you have a *succotash* in perfection.

AN OLD GARDENER.

RENOVATING GRASS LANDS.

The very best way, undoubtedly, to improve meadows or pastures that have become impoverished, is to plow them up, manure heavily, and seed them down again. If infested with daisies and other weeds, they should be broken up in the fall, and planted with potatoes or other root crops for several years, and then laid down to grass. If, however, the land is low and wet, and weeds not very troublesome, they may be plowed in mid-summer, manured and harrowed thoroughly, and in September sowed with grass-seed. In most cases, a fair crop of hay will be realized the next season.

But when it is not convenient to pursue this thorough treatment, a good effect may be produced by top-dressing. Spread a good layer of compost or well-rotted manure on the sward, scarify it with a heavy harrow, and sow with a mixture of six quarts Timothy and one half bushel each of red-top and rye-grass seed to the acre, and follow with a light harrow to cover the seed. The manure should be applied quite early in the Spring, so as to be washed in by the April rains. Where barn-yard manure is not abundant, various other fertilizers may be used to good advantage. Guano may be applied at the rate of two hundred to three hundred pounds an acre. It should be mixed, a week before it is wanted for use, with dry, vegetable loam, at the rate of four parts of loam to one of guano, and applied broadcast, very early in spring. Lime, (air-slacked,) is very useful to cold, clayey soils; it is death on mosses and sorrel. Muck and lime, mixed at the rate of five cords of the former to seven bushels of the latter, often produce surprising effects on worn out grass-fields. Muck, mixed with unleached ashes, at the rate of a cord of the first to ten bushels of the last, is nearly as good as barn-yard manure. Where the land has long been devoted to pasturage, it is recommended to give a dressing of bone-dust, ten bushels to the acre. A mixture of plaster, ground bones and powdered charcoal has also been used with very gratifying results.

We hope our readers, in this matter, will try some of these plans, and send us reports of their success.

RHUBARB—A GROWER'S EXPERIENCE.

To the Editor of the American Agriculturist.

In your January number are valuable suggestions on the culture of "*Pie plant*," which accord well with my own experience for several years past. I have experimented largely, and think I have now reached the "*Ultima Thule*" of Rhubarb culture, though I would not wish to be opinionated, as is too apt to be the case in Horticulture and Agriculture as in everything else. Each one thinks his own mode of procedure superior to that of any one else.

In setting out the plant, dig a hole as large and deep as a barrel, and fill to within a foot of the top with well rotted manure. Then throw on three inches of dirt, and set the root so that the top will be about two inches below the surface. Be sure and put them where the sun will have access to them the entire day.

The first season after setting out, keep litter around them, and water occasionally if the season

is dry, applying the water at night. Keep the earth loose around them—stirring it every week—and replacing the litter. When Fall comes, put upon each hill two bushels of manure; and in the Spring dig a trench far enough from the hill not to injure the roots, put the manure into it, and cover slightly with earth. If the Summer be dry, water occasionally, and treat in the same manner as before. Pie plant is a gross feeder, and must have a great quantity of nutriment to thrive well.

After the roots have stood three years, dig up and quarter each hill and plant as before, putting the hills four feet apart. If the plants stand the fourth year, they begin to go to seed, and as the roots are considerably exhausted by this time, they do not yield so well.

Managed in this way, on a sandy soil, I have the first year obtained enough from six hills for a family of as many persons, and the second and third years have often supplied two families besides my own.

MILAN, O.

NOTICES TO CORRESPONDENTS AND GLEANINGS.

[We have a very large number of letters from correspondents which must go over to next month for consideration and reply. They could not be attended to in the short month just past, abbreviated as it was, seven days at the beginning by the unavoidable delay in issuing the February number, and three days at the end by the Almanac.]

ANONYMOUS LETTERS—are seldom noticed even.

Woodlands, White Pines, &c.—J. Carter, of Oxford, Pa., asks how to improve those of sparse growth. This is pretty fully answered in the leading article "Work for the Month." Respecting the White Pines alluded to, they will be found difficult to transplant with success unless quite small and removed with a quantity of earth attached to their roots. Better sow the seed in common with yellow locust and other varieties. The cones containing the seed of pines, spruce, hemlock, fir, &c., should be gathered in the fall or beginning of winter, and thoroughly dried. Remove the seeds from them in the spring and sow broadcast. Where forests are cut off, with the exception of a few scattering trees, and the small growth, and cattle and sheep kept from them, there need be no fear but an abundance will spring up. On the contrary thinning will usually be requisite. It would be advisable to cut off only a portion at once, at intervals of a few years. We advise to obtain the drain deposits alluded to, if it contains much decaying vegetable matter. If it be chiefly fine clay it is not worth the carting, unless to be added to very sandy soils—a matter to be discussed in articles on the Mechanical treatment of Soils.

Virgalieu Pear.—J. H. Dudley, of Poughkeepsie, N. Y., asks what he shall do for a tree of the above variety, which produces worthless fruit. This pear commenced to fail at the East some years ago, and that failure appears to be extending through this region. It is only a few years, since good fruit was raised upon the Hudson but now the only really fine Virgalieus are produced at the West. We have tried severe pruning, scraping the bark, and washing with different solutions, but all to no purpose. We advise grafting to Bartlett, Lawrence, or some other good variety.

Insects.—W. S. L.—The insect you speak of upon hot house plants, is doubtless the turtle. Tobacco fumigations will destroy the larvæ, although they may not affect the insect itself. Wash the plants in a solution of whale-oil soap, or immerse in the solution described under "Hot House," page 3 of the January number. This will destroy almost any insect without injury to the plant.

Pumpkins, Squashes, Melons, &c.—Mixing Seed.—J. G. L., asks "if the fruit of these will mix when planted side by side, or only the seed." It is the seed alone that is affected, else there would be great confusion in the vegetable world. Did the fruit itself mix, we should find a pear tree producing various kinds, a squash vine bearing, perhaps one squash, one pumpkin, and a mongrel between the two, and so on through the vegetable kingdom. Hybridizing does take place, and to preserve a species distinct, care should be observed to plant it away from another of the same class. This however is not perceived the first year, so that where the present crop is the only object, pumpkins, squashes, cucumbers, melons, &c., may be planted together without danger of a mixture. The seed of these, planted another year might be true, but quite likely they would vary somewhat from the original, and if the same practice were

continued, the stock would change greatly or run out entirely.

New Subscriptions Still in Order.

We are abundantly satisfied with the measure of success thus far attending our enterprise. The former readers of this journal, without any urging on our part, or scarcely a word of prompting, seem to have joined in one united effort to bring all their friends and neighbors into the 'Agriculturist Phalanx,' and already our subscription list is many thousands larger than that of any other journal in the world which is devoted to solely Agricultural and Horticultural improvement. For these kind evidences of appreciation, we tender our heartfelt thanks.

But "Excelsior" is our motto. We have no set bounds to the improvement of the Agriculturist intrinsically, or to the sphere of its influence. We extend the invitation to every new as well as old subscriber, to become an agent, so to speak, in diffusing light and information in every direction around him. Every person whom you can induce to read and think, will be benefited thereby. If you deem the Agriculturist the best means of accomplishing this end, set forth its advantages to the unappreciative. If any other journal is better adapted to your purpose, then recommend that one. As for ourselves, we "aim at perfection, hit where we may." Aside from any personal advantage, we should be glad to see this paper go into five homesteads where it now visits one, and that, too, this present season. We are publishing a series of articles which we shall not wish to repeat another year, and yet which we shall wish all our next year's readers to have perused. Cannot many of them be persuaded to commence now, or rather at the beginning of this volume, for the back numbers can be supplied at all times from the stereotype plates.

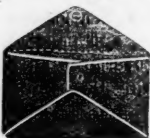
PREMIUMS.—We have no special PREMIUMS to offer, though we will here propose to send an extra package of Sugar Cane Seed, or of the King Philip or Sweet Corn, to any present subscriber for each new subscriber he or she may send in during this month (March), and perhaps later. Every new subscriber will of course be entitled to such seeds as we offer free to all our readers.

About Seed Envelopes.

We have just got through with sending off nearly fifteen thousand packages of Sugar Cane Seeds, and on page 56 have offered to send off some other Seeds in the same manner; and as we expect to follow up this seed distribution, from time to time hereafter, we shall be excused if we give a few simple suggestions in reference to envelopes. A single half minute saved in putting up each of twenty thousand packages into letters, will amount to seventeen days time.

1st. We put up all seeds sent out in paper packages, ready to be dropped into an envelop of the ordinary letter size. One smaller than this is inconvenient, while a large, heavy envelop often doubles the postage.

2nd. When just as convenient, it is better to use an envelop of the "Government Pattern." Those of the common form often fail to close together when any bulky substance is put inside. The former are always safer for all letters, and need not cost over six cents per hundred more than the common kind.



"Government Pattern."



Common Form.

3d. The whole address should be plainly written, and not left to be studied out from the accompanying letter, or guessed at from the post-mark. This will save much time, and insure the proper direction of the seed.

4th. Spell out the name of such states as Massachusetts, Maine, Missouri, Mississippi, Indiana and Iowa. Ms., Mo., Me., Miss., Mass., &c., are often confounded. Ia. is too often used indiscriminately for Indiana and Iowa, and Ia. and La. are frequently written alike: so with Penn. and Tenn.

5th. Put the stamp or stamps upon the right hand side of the envelop—one above the other, if more than one is used. This gives room to Post-mark them without crushing the seed. Our seed letters are usually deposited in our country Post-Office, where they are mailed with extra care, and "mailed direct."

6th. Mark upon the upper left hand corner what kind of seeds the envelop is designed for.

Those forwarding unpaid envelopes will of course not be disappointed if they receive no return. We offer seeds free, but can not, in addition to this, afford to pay postage also.

Always put the postage stamps upon the envelop, and not drop them loosely inside, where they may be lost.

Send only the number of stamps required for postage on the seed. We have no seeds of any kind to sell.

Business Notices.

Forty Cents a Line.

NOTICE TO FARMERS AND GARDENERS.

Superphosphates and all other artificial Manures are excelled by SCHWAGER'S "Patent Animal Fertilizer." It consists of Bones, Hair, Hides, Fish, Flesh and Blood from the Offal of the City of New-York, which are converted by the Patent process of JOHN A. SCHWAGER, into a concentrated and granulated powder, in appearance resembling Guano, and of much greater intrinsic value.

Manufactured by this process all the nitrogen and Ammonia is retained, and none of the natural fertilizing properties contained in the above named materials are lost, as must be the case in the use of Shell Lime, Acid, &c., which are employed in the manufacture of the many varieties of advertised Ammoniated Superphosphates. The Patent Animal Fertilizer is furnished to consumers at \$50 per ton. Farmers will require to use only from 200 to 400 lbs. of this manure per acre according to the condition of the soil, and its fertilizing properties will also be very apparent the second as well as the first year, making it by far the cheapest article ever offered to the public. Please notice advertisement in another column.

CHINESE SUGAR CANE.

I am expecting an additional and full supply of genuine Chinese Sugar Cane Seed, from France, which will be ready for the Spring trade at fair prices.

R. L. ALLEN, 189 Water-st., New-York.

GRINDING SUGAR CANE.

In answer to repeated inquiries for cheap portable sugar cane mills, we are happy to inform the public that we have just completed a new and superior one, adapted to the wants of all engaged in sugar making. It will be on exhibition in actual operation at the Fair in Washington, D. C., which opens March 2nd. Full particulars in the April Agriculturist.

HEDGES & FREE,

(SUCCESSORS TO SCOTT & HEDGES.)

CINCINNATI, OHIO.

Plenty of Sugar Cane Seed.

When first making the offer of Sugar Cane Seed, we supposed three or four thousand packages, at most, would be the extent of the demand. But instead of the calls stopping there, they have run up to nearly four times that amount, and are yet coming in at the rate of one hundred and fifty, to three hundred, daily. We have two or three times been troubled to get the seed, but by securing all we could get hold of, at any price asked (in one case \$4 per pound, and in another \$70 per bushel), we have been able to meet all calls from subscribers, and now have some two thousand packages left, with the daily expectation of the arrival of six to eight thousand packages more, so that we can confidently promise at least three hundred seeds free to new or old subscribers not having received them, and also continue the offer of three to four thousand seeds to clubs of six. Of course those wishing this or any other seed will send a ready-directed, post-paid envelop to mail it in. The clubs of six will need to send twenty-four cents for postage, in addition to the \$5 for subscription.

Almost every day brings reports encouraging us to hope much of this plant for the future; still we are constrained to repeat the caution given at the close of page thirty-seven.

Send for lost Numbers.

With the utmost care, an occasional mistake will occur in entering twenty thousand names from letters (not always plainly written), and transcribing them to the mail book, and also in writing the wrappers and mailing to so large a number of different individuals. But every possible precaution is taken to reduce these errors to as few as may be. A much greater source of loss and delay is in the irregularity of the mails, which have been in worse confusion than ever, during the past few months, owing to the great amount of snow and subsequent freshets. We earnestly desire that every subscriber should receive all the numbers of the volume—and we ask each and every one who fails to get any number after waiting for any unusual detention of the mail, to send for a duplicate copy which will always be forwarded freely and with pleasure. As the paper is stereotyped from the beginning of volume XVI, we can always furnish any necessary number, and also send the entire volume to new subscribers. The paper is usually mailed before the first day of each month. Our last number however, was not all mailed before February 10th, for the reason given at the end of page 44.

The Advertisements

will be found as interesting to readers this month as any other part of the paper. They are nearly all on topics pertinent to the farm and garden.

Advertisements.

TERMS—(invariably cash before insertion):
Twenty-five cents per line (of ten words) for each insertion.
By the column or half column, \$30 per column for the first insertion and \$25 for each subsequent insertion.
Business Notices Forty cents a line.
Advertisements to be sure of insertion must be received at latest by the 20th of the preceding month.

WANTED—ON THE FIRST OF APRIL
next, a Manager accustomed to the care of stocks, to take charge of a large farm, situated in a healthy district, within eight miles of Baltimore city.
J. HOWARD MCHENRY,
Pikesville, Baltimore Co., Md.

FARM FOR SALE.

THE UNDERSIGNED OFFERS FOR
sale the FARM heretofore owned and cultivated by J. M. SHERWOOD, Esq., at Auburn, N. Y. It contains 290 acres, under a high state of cultivation and offers a rare opportunity for any gentleman who desires to embark in the business of Farming and Stock Breeding. The barns and stables are ample, with an unfailing supply of water, and all conveniently arranged. The dwelling house is of brick, in modern style, and very pleasantly situated.
240 acres lie in a body, within the limits of the city of Auburn, and will be sold without the other 50 acres, if desired. This very desirable property may be purchased at 50 per cent. less than it would cost to take an ordinary farm and put it in equal condition.
Some of the best stock ever bred by Mr. Sherwood, is still on the farm, and may be had with it.
For further particulars, address the undersigned, or J. M. SHERWOOD, Esq., at Auburn, N. Y., or inquire of B. P. JOHNSON, Esq., State Agricultural Rooms, Albany.
Feb. 10, 1857. CHAS. P. WOOD.

IOWA LAND. 320 ACRES FINE ROLL-
ing Prairie, in Mills county, near Railroad now under construction, for sale cheap by
JOHN VANDERBILT, 189 Water-street.

THERMOMETERS, BAROMETERS, &c.
of reliable quality and various descriptions, among which are those particularly suited for Horticultural purposes, which register the coldest and warmest degree of temperature during the 24 hours, in the absence of the observer. For sale by
D. EGGERT & SON, 239 Pearl-st.

CHICKEN AND HOG FEED.—FOR
sale, a quantity of Beef and Pork Scraps, a superior article for swine and poultry, also for manure. Price \$30 per ton.
WILLIAM C. HALL,
No. 432 Ninth Avenue, New-York.

SPRING GARDEN SEEDS, &c.

THE BEST VARIETIES OF
PRIZE CUCUMBERS AND MELONS for frames.
Improved New-York EGG PLANT.
EARLY TOMATOES, CABBAGES AND LETTUCES.
Early Paris, Nonpareil, Lemonade and other approved CAULIFLOWERS.
PEPPERS, CELERIES, CARDOON.
PEAS—Early Daniel O'Rourke, Emperor, Cedo Nulli, Prince Albert, Champion of England, and the recently introduced and very superior later sorts, Lord Raglan, Epp's Monarch, Harrison's Glory and Perfection, &c.
GREEN GLOBE ARTICHOKE, WINDSOR BEANS, BEETS, BROCOLIS, RADISHES.
CARROTS—Early forcing and other sorts.
MUSHROOM SPAWN, HERB SEEDS, SPRING TUR-
NIPS, of all sorts.
INDIAN CORN—Extra Early Burlington, King Philip and Darling's Sugar, Early Canada and Tuscarora, Evergreen, Old Colony and Mammoth Sugar, &c. &c.
CHRISTIANUSKAND NEW ORANGE WATERMELON.
POTATOES—Early Sovereign, Early June, &c. &c.
BEANS—Early Snap Short, Valentine and other Bush varieties.
POLE BEANS—Large and Small Lima, Horticultural Cranberry, &c. and every other desirable variety of Vegetable Seeds, all of the very finest qualities, and growth of 1856.
FLOWER SEEDS—The largest collection to be found in the Union, comprising standard sorts and novelties, both of domestic and foreign growth.
NEW CHINESE SUGAR CANE, 75 cents a pound, and in packages at 25 and 50 cents each, prepaid, by mail: NEW CHINESE POTATO (*Dioscorea Batatas*); CHUFAS, or EARTH ALMONDS; JAPAN PEAS, SPRING and WINTER VETCHES, or TAKES; OSAGE ORANGE, YELLOW LOCUST, BUCKTHORN, HONEY LOCUST, NORWAY SPRUCE, SCOTCH FIR, and other Tree and Evergreen Seeds.
FRUIT SEEDS—PEAR, PEACH, PLUM, &c. &c.
TOBACCO SEED—MARYLAND, VIRGINIA, FLORIDA, CONNECTICUT SEED LEAF, IMPORTED HAVANA, &c. &c.
DYER'S Madder SEED, SPURRY, WHITE LUPINS, FULLER'S TEASLES.
BIRD SEEDS—Of all kinds.
AGRICULTURAL SEEDS—FIELD and RUTA BAGA TURMIPS, LONG ORANGE, WHITE BELGIUM and ALLRINGHAM CARROTS, MANGEL WURTZEL, SUGAR BEET.
GRASS SEEDS—ITALIAN and PERENNIAL RAY, SWEET-SCENTED VERNAL, RED TOP, BLUE, FESTUCAS, FRENCH LARKED and other desirable mixtures for Lawns, WHITE HONEYSUCKLE, LUCERNE and other CLOVERS, &c.
FRUIT, EVERGREEN and ORNAMENTAL TREES, GIANT ASPARAGUS ROOTS, RHUBARB, &c.
GARDEN SPRINGES, BUDDING and PRUNING KNIVES, PRUNING IMPLEMENTS, and a general assortment of the best varieties of HORTICULTURAL TOOLS.
Catalogues on application. If by mail, inclose a three-cent stamp for return postage.
The smallest orders by mail promptly responded to.
J. M. THORNBURN & CO.,
15 John-street, New-York.

JUST RECEIVED from Holland, in the finest condition, large and sound, an assortment of BULBS for Spring Planting, viz.:
AMARYLLIS (*Jacobean Lilies*) FORMOSISSIMA and LUTEA.
GLADIOLUS—*Pittacinnus, Floribundus, Gandavensis* and *Ramosus*, named and mixed sorts.
TIGER FLOWERS (*Tigrida*) RED and YELLOW.
TUBEROSES, MADEIRA VINES, &c. &c.

RUSSIA OR BASS MATS, GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by
D. W. MANWARING, Importer,
245 Front-street, New-York.

"EVERY FARMER SHOULD OWN THEM." ALLEN ON THE DISEASES OF DOMESTIC ANIMALS.

THIRTY-FIRST THOUSAND.
Price 75 cents, and sent free of Postage, on Receipt of Price.
"Its greatest worth is as a 'complete Farrier.'"—*Farmer and Mechanic.*
"It ought to be in every family where Dairying is carried on."—*Worcester Transcript.*
"Worthy of a place in every Farmer's Library."—*Jeffersonian.*
"Just what is needed by every good farmer."—*L. I. Farmer.*
"A very excellent book on Domestic Animals."—*Maine Farmer.*
"A most admirable practical work for every day use."—*Index.*
"The work ought to be in the hands of every Planter."—*N. O. Delta.*
"When such men as R. L. Allen take up the pen, something flows from it which does his fellow-men good."—*Iowa Advocate.*
"Here is a Book for the Million, written by a Gentleman of Science and Experience."—*Newburyport Watchman.*

ALLEN'S (R. L.) AMERICAN FARM BOOK.

The American Farm Book; or, a Compend of American Agriculture, being a Practical Treatise on Soils, Manures, Draining, Irrigation, Grasses, Grain, Roots, Fruits, Cotton, Tobacco, Sugar Cane, Rice, and every Staple Product of the United States; with the best methods of planting, cultivating, and preparation for market. Illustrated by more than one hundred engravings. By R. L. Allen.
One of the most complete Books upon American Agriculture that has yet been published. Price One Dollar. Sent free of Postage. Address
C. M. SAXTON & CO.,
140 Fulton street, New-York.

FIELD AND GARDEN SEEDS.

A FULL ASSORTMENT OF THE
choicest Foreign and Domestic Field and Garden Seeds, raised expressly for my trade. All genuine and of the best kinds. For sale wholesale and retail.

SORGHUM SACCHARATUM, or CHINESE SUGAR-CANE, both of foreign and home-growth, put up in dollar packages, with printed directions for planting. Also, by the pound or in larger quantities.

KING PHILIP, or BROWN CORN.

WYANDOTTE CORN.

LARGE SOUTHERN CORN.

WHITE and YELLOW FLINT CORN.

DARLINGS EXTRA EARLY SWEET CORN.

EARLY TUSCARORA CORN.

EVERGREEN, DUTTON, POP and other varieties.

POLAND and OTHER CHOICE SEED OATS—The best in market.

SPRING BARLEY—Extra choice quality.

SPRING RYE.

SPRING WHEAT—Fife, Tea, Golden Drop, Canada Club and Black Sea.

POTATOES—Prince Albert, very superior.

"

" Dikeman.

" Early June.

" Ash Leaf Kidney, Mercer, and other choice varieties.

SPRING and WINTER VETCHES, BROOM CORN,

PEAS of every choice variety, BEANS ditto.

GRASS SEEDS—Timothy, Red Top, Ray, Orchard, Blue Sweet See ted Vernal, Foul Meadow, &c.

CLOVER—Large and Medium Red, Dutch White, Lucern or Alfalfa, Alsike, Crimson, Sanfoin, Sweet Scented.

MILLET—Extra clean for sowing.

FLOWER SEED and HERBS—All new and valuable varieties.

RED and YELLOW ONION SETS—Top or Button Onions, Potato Onions.

APPLE, PEAR and QUINCE SEEDS, PEACH PITTS &c. &c.

OSAGE ORANGE—Yellow and Honey Locust, Buckthorn, MUSHROOM SPAWN TOBACCO SEED—Havana, Virginia, and large Connecticut Leaf—all choice varieties.

BIRD SEED—Canary, Hemp, Rape, Maw and Rough Rice

GRAFTING WAX, WHALE SOAP GUANO and SUPER-

PHOSPHATE (F LIME, in small packages of 25 cents each.

FORGING G) ASSES, SYRINGS, and a full assortment

of HORTICULTURAL IMPLEMENTS, VINE and FLOWER

SCISSORS, GRASS and HEDGE SHEARS, &c. &c.

STRAWBERRY, CURRANT, and RASPBERRY SEED—

Lawton Blackberry, Red Antwerp, Fastolf and Franconia Rasp-

berry, Hovey's, and other choice Strawberries, Cranberry, Pie

Plant or Rhubarb, Asparagus, Osage Orange, and other plants.

Fruit Trees and Shrubs of all kinds, in the best condition,

furnished to order.

Catalogues furnished on application.

BOOKS—A choice variety of standard works on Horticulture, Agriculture, trees, drainage, &c. &c.

R. L. ALLEN,

189 Water-st., New-York.

FIELD AND GARDEN SEEDS, AGRICULTURAL and HORTICULTURAL IMPLEMENTS of the most approved patterns.

Farmers will find it to their advantage to call and see our

LITTLE AMERICAN MOWER and REAPER.

It weighs only 450 pounds, light draft, no side draft, and warranted to give satisfaction. Sold at the low price of \$100 as a Mower; \$120 as Mower and Reaper. Sold by

GRIFITH BROTHER & CO.,
60 Courtlandt-st., New-York.

LINNEUS RHUBARB.

PARSONS & CO.,

FLUSHING, NEAR NEW-YORK.

OFFER FOR SALE THIS SUPERIOR
variety of PIE PLANT, at \$10 per hundred, or \$30 per
ousand crowns.

PARSONS & CO.,

FLUSHING, NEAR NEW-YORK.

OFFER FOR SALE AN ASSORTMENT

of Trees and Plants which they have grown for the use of amateurs, and have prepared, by frequent transplanting and other modes, for success in moving.

They are of fine size and symmetrical form, and among them will be found

STANDARD APPLES of fine quality.

STANDARD PEARS, PLUMS and CHERRIES.

PEACHES, APRICOTS and NECTARINES, on Plant

stocks and the own roots.

DWARF PEARS of fine form, and ready for bearing.

GOOSEBERRIES and CURRANTS, strong plants of the best sorts

RASPBERRIES—FASTOLF, RED ANTWERP, FILLBASKET and other known sorts.

STRAWBERRIES of all the best varieties.

NATIVE GPAPES—ISABELLA, CATAWBA and other hardy varieties.

FOREIGN GRAPES—All the well-known sorts, with some new varieties of great excellence. These plants are propagated from vines that have borne abundantly for some years, and are known to be correct.

Great care is taken in the cultivation of Fruit trees, and none but those of the best quality are allowed to be sent out.

THE ORNAMENTAL DEPARTMENT

Contains Trees of all sizes for lawns and streets, including Elm, Silver, Norway and Sycamore Maples, Catalpas, Lindens, Tulip

Trees, Cypress, Larch, Willows, Ash, Abels, Oriental Plane and all the best varieties of deciduous trees.

It also includes Evergreens of fine size for single planting, and of small sizes at low prices, from one foot upwards, for

massing; among them are Norway Spruce, Balsam Fir, Austrian Pine, Hemlock, White Pine, Scotch Fir and other varieties.

The best shrubs include many fine varieties at low prices, for

massing, of which the *Rhododendron Catawbiense* can be particularly recommended for its fine evergreen foliage, showy

bloom and perfect hardiness.

The ROSES are cultivated in very large quantity, on their own roots, and the most rare varieties, and to those who purchase in quantity will be sold at greatly reduced rates.

THE EXOTIC DEPARTMENT

Contains a fine assortment of *Camelias*, grown as bushy, rather than tall, slender plants; and also contains all the well-known

varieties of exotic plants and many rare sorts introduced from Europe annually. These are all carefully grown for those who desire plants of symmetry and beauty.

CATALOGUES of all the departments will be furnished on application. Great care will be taken in packing, and trees will be delivered in New-York, and thence shipped as directed.

FRUIT AND ORNAMENTAL TREES.

ELLWANGER & BARRY, PROPRIETORS

of the MOUNT HOPE NURSERY, Rochester, N. Y., solicit the attention of Nurserymen, Planters and Dealers, to the extensive stock now on their grounds, which they are prepared to offer for the ensuing Spring trade.

Their Nurseries were established eighteen years ago, and now occupy four hundred acres of land, closely planted. The stock now growing is the most varied and extensive ever offered in this country, including

STANDARD APPLES for Orchards;

DWARF APPLES on Paradise and Doucin stocks;

STANDARD PEARS on free stocks 1 and 2 years;

DWARF and HALF-STANDARD PEARS on Quince stocks, 1 and 2 years from bud;

STANDARD CHERRIES on Mazzard stocks, 1 and 2 years from bud;

PLUMS—Dwarf;

PEACHES, APRICOTS, NECTARINES, QUINCES, &c.;

GRAPES—Hardy, Native and Foreign varieties.

STRAWBERRIES, GOOSEBERRIES, CURRANTS, RASPBERRIES;

RHUBARB and ASPARAGUS, &c.

The collection of bearing Specimen Trees is the largest in the United States. Besides, the proprietors devote their entire time and attention to the business, and they are thus enabled to guarantee the correctness of articles sent out.

THE ORNAMENTAL DEPARTMENT

Is equally complete, and comprises

ORNAMENTAL DECIDUOUS TREES of all kinds, including the most rare and desirable varieties of Lawns and Cemeteries.

EVERGREEN TREES of all the most desirable species, and of all ages and sizes. More than a million of Trees are in a saleable state, and are offered low, in quantities.

EVERGREEN and DECIDUOUS FLOWERING SHRUBS, including almost everything suitable for the climate of the United States.

ROSES—Upwards of three hundred of the most beautiful varieties, carefully selected during many years culture and experiment.

PEONIES—About eighty superb varieties, including many new and very distinct sorts.

PILOXES—Seventy-five select and beautiful sorts, all of recent introduction.

CHRYSANTHEMUMS—Fifty of the finest Pompones or Daisy varieties, newly introduced.

CATALOGUES.

The following Catalogues will be sent gratis to all who apply, post-paid, and inclose a stamp to prepay postage:

No. 1—A descriptive Catalogue of Fruits.

No. 2—A descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c. &c.

No. 3—A Catalogue of Dahlias, Verbenas, Petunias and select green-house and bedding plants.

No. 4—A wholesale priced Catalogue for Nurserymen and Dealers.

SMALL EVERGREENS,

CHEAPER THAN IMPORTED.

PARSONS & CO.,

FLUSHING, NEAR NEW-YORK.

OFFER FOR SALE—

Norway Spruce, 1 year planted, \$10 per 100; \$30 per 1,000;

2 years " 12 " 100

of larger size, \$15 to \$40 "

Siberian Arbor Vita, 2 " feet, \$40 per 100;

2 1/2 to 3 feet, 60 "

Cedrus Deodara, 2 feet, \$40 per 100

Roses, 3 " 30 "

" 4 " 30 "

Abies Morinda, 1 1/2 " 50 "

Rhododendron Catawbiense, 1 foot, \$50 per 100,

with many other varieties suitable for the trade, or planting in masses.

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ADAMS, Portland, Maine, continues to forward by

steamers or railroads, ARBOR VITAE, FIR, SPRUCE, PINE, LARCH, and other hardy trees, at his usual prices. Catalogues sent to all who enclose stamp.

TO COTTON PLANTERS.

THE COTTON PLANTER'S MANUAL:

Being a Compilation of Facts from the Best Authorities
ON THE CULTURE OF COTTON,
Its Natural History,
Chemical Analysis,
Trade and Consumption,
AND EMBRACING A HISTORY OF COTTON
AND THE COTTON GIN.
By J. A. TURNER.

Sent free of Postage on Receipt of Price.

GARDENING FOR THE SOUTH.

By W. N. White, of Athens, Georgia. A most complete manual for every department of Horticulture, embracing the Vegetable Garden, the Fruit Garden, the Flower Garden, and the Pleasure Grounds, adapted particularly to the Southern States. Price \$1.25.

To be obtained of all Booksellers, or sent by us prepaid to any part of the Union on receipt of price.
C. M. SAXTON & CO.,
Agricultural Book Publishers,
140 Fulton-street, New-York.

HORTICULTURAL TOOLS—A full assortment of Hedge and Vine Shears, Pruning Knives, Hoes, Rakes, Cultivators, Trowels, Forks, Watering Engines &c. &c.

PLOWS—A large variety of patterns, among which are the most approved Sod, Stubble, Side-hill, Double-mold, Sub-soil, Lock Counter, Self-Sharpener, &c.

CARTS AND WAGONS—With iron and wood axles, on hand or made to order, in the best and most serviceable manner.

LITTLE GIANT and other Corn and Cob Crushers
For sale by
R. L. ALLEN,
189 and 191 Water-st., New-York.

FRUIT AND ORNAMENTAL TREES FOR SALE.

THE SUBSCRIBER WOULD CALL

attention the coming Spring to his large stock of PEACH and other Fruit Trees, embracing Apple, Pear and Cherry of both Dwarf and Standard, of extra and medium sizes. Also Apricots, Nectarines, Almonds, &c., with a large stock of Evergreens from 6 to 12 feet high, suitable for ornamenting grounds, at low prices. For Nurserymen, 100,000 Silver Maple Seedlings, with other nursery stock, such as French Quince, Plum, Pear, and Mahaleb Cherry stocks.

Catalogues or Trade Lists, with prices annexed, will be sent to all who inclose a cent stamp for each. Address:
ISAAC PULLEN,
Hightstown, New-Jersey.

NEW CANAAN NURSERIES—Three

and a half miles from the Danbury and Norwalk Railroad depot.—The subscribers are prepared to offer the largest and best assortment of Nursery stock the coming season, they have ever had, consisting of 50,000 Apple trees, three and four years from the bud or graft; 40,000 Peach trees, one year from the bud; Cherry trees, Pear trees, standard and dwarf. Also, a general assortment of Evergreens and other ornamental trees.

N. B.—We would particularly invite the attention of persons wishing to purchase largely, to our stock of Apple and Peach trees.
STEPHEN HOYT & CO.
New Canaan, Ct., Oct., 1856.

NEW-JERSEY PEACH TREES—FIRST

CLASS, 1 year budded, 4 to 6 feet high. I will deliver in New-York city for \$75 per 1,000. Also Pear, Plum, Cherry and Quince Trees.
WM. DAY, Morristown, N. Y.

CRANBERRY PLANTS.

BEARING PLANTS OF THE BELL
variety of Cranberry, the best for general cultivation, Prices, 50 cents per 100; \$4 per 1,000; \$15 per 2,000 plants.

UPLAND CRANBERRY—An entire new variety from Newfoundland, smaller Berry, but more prolific, and not as acid as the common Berry, at \$1 per 100 plants.
F. TROWBRIDGE,
Dealer in Trees, Plants, &c., New Haven, Ct.

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THE SUBSCRIBERS HAVING PURCHASED the entire stock of STRAWBERRY PLANTS belonging to the late Dr. Thomas Edmondson, offer for sale three of his best seedlings (Marylandica, Harlam Orange, Charles' Favorite, at the following rates, viz.:

Marylandica, a staminate variety, vigorous grower, distinct in every feature from any other, having taken the first prize for the last four years, at the June Exhibitions of the Horticultural Society of Maryland, for being the largest and best fruit exhibited; rich crimson color, fine flavor, firm flesh, having frequently been sent to New-York, were firm and fresh when opened.

Price per 100 plants, \$15;
do. dozen do. \$5.
Harlam Orange, a pistillate variety, orange color, pineapple shape, firm flesh, and prolific bearer.

Price per 100 plants, \$10;
do. dozen do. \$4.
Charles' Favorite, a seedling from Hovey's Seedling, color, size, shape and flavor, similar to the same, but ripens ten days earlier.

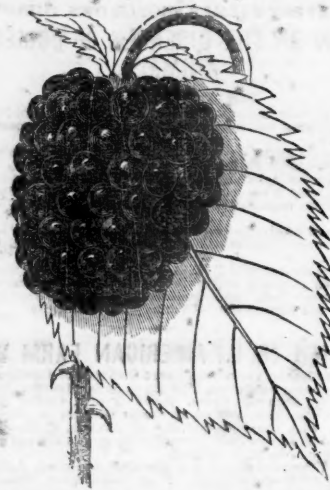
Price per 100 plants, \$8;
do. dozen do. \$3.
100 Plants of each of the above-named, in one order, \$25;
1 dozen Plants do. do. \$10

We also offer for the first time, the following new seedling Camellias of our own origination, viz.:

Feast Perfection, a fine imbricated flower, pink lilac, purple veined, delicate rose spots, price \$5 each.
Triumph of Baltimore, a large bold imbricated flower, striated carmine, price \$3 each.

Mary Kurtz, a seedling of Edward Kurtz, Esq., of this city, a well-known amateur; color, white ground, striped and spotted with rose, similar to Dutchess of Orleans, a very free bloomer, fine habit, price \$5 each.

One Plant of each of the above-named, in one order, \$10.
SAMUEL PEASE & SONS,
Nurserymen and Florists,
Baltimore Maryland.



LAWTON BLACKBERRY.

PURCHASERS ARE ADVISED TO obtain the genuine variety, and in original, unbroken packages, and have their ground prepared so as to plant them as soon as received.
For sale in packages carefully prepared for safe transportation.

One package of half a dozen plants, \$2
" one dozen " 3
" two dozen " 10
" fifty " 18
" One hundred " 18

The money should accompany the order, with name and directions distinctly written.

WM. LAWTON, 54 Wall-st., New-York.

NEW-ROCHELLE OR LAWTON

BLACKBERRIES, in large or small quantities, for sale by
R. L. ALLEN, 189 and 191 Water-street.



ISABELLA AND CATAWBA GRAPE

VINES, of proper age for forming Vineyards, cultivated from, and containing all the good qualities which the most improved cultivation for over sixteen years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success provided their locality is not too far north.

All communications addressed to R. T. UNDERHILL, M. D., New-York, or Croton Point, Westchester County, N. Y., will receive attention.

The additional experience of the four past seasons gives him full assurance that, by improved cultivation, pruning, &c., a crop of good fruit can be obtained every year, in most of the Northern, all of the Middle, Western and Southern States.

N. B.—To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.
R. T. U.

GRAPE VINES—5,000 ISABELLA AND

CATAWBA GRAPE VINES, two years old, for sale by
GEORGE W. ATWOOD,
No. 16 Cedar-street, New-York.

ISABELLA GRAPE VINES FOR SALE,

from one to three years old, by
S. E. VAN WYCK,
Fishkill, Dutchess County, N. Y.

STRAWBERRIES.

THE SUBSCRIBER CAN FURNISH from his grounds this Spring a few hundred of each of the following varieties of Strawberries—of most of the varieties, many thousands. Persons who may desire to establish plantations of the most approved varieties, may find it to their interest to make early application:

Hovey's, Jenney's, Walker's, and Genesee Seedlings:
Large Early Scarlet. Moymensingh.
Longworth's Prolific. Monroe Scarlet.
Extra Red. Crimson Cone.
Schneike's Pistillate. Willey.
McAvoy's Superior. Iowa or Washington.

Price \$1.40 per hundred;
75 in lots of five hundred;
650 per thousand for all except Longworth's Prolific, McAvoy's Superior, and Genesee Seedling.

Also the White and Red Antwerp, Fastoff and Franconia Raspberry Canes, the most approved varieties for garden or field culture.
J. M. WARD, Newark, N. J.

March 1, 1857.

RASPBERRY PLANTS.

10,000 FINE PLANTS OF THE new French double bearing RASPBERRY for sale. They are as large as the Antwerp, perfectly hardy, need no covering, and are the most productive of all Raspberries.

In thinning out in the Spring, I shall have about 10,000 more than I wish to keep. They will be packed in mats, and delivered at the depot, New-York city, at the low price of \$5 per 100, or \$40 per 1,000. Address
F. D. TUCKER,
No. 11 South 7th-street, Williamsburg, L. I.

LAWTON

BLACKBERRY PLANTS.

The Subscribers announce to their friends and customers that they have now

OVER SIX ACRES

of the

GENUINE LAWTON

BLACKBERRY PLANTS

under cultivation, and in good condition.

They are therefore prepared to fill large orders the coming FALL and the following SPRING.

PRICES.

\$20 per Hundred plants.
\$11 per Fifty plants.
\$4 per Dozen plants.
\$2 25 per Half dozen plants.

N. B. All plants ordered of us will be TAKEN UP and PACKED with the GREATEST CARE; and UNDER OUR OWN PERSONAL SUPERVISION.

Of the MANY THOUSANDS

sent out by us last year we have heard very few instances of failure, notwithstanding that they have been forwarded to

EVERY PART OF THE COUNTRY.

and the setting out has often been entrusted to unskillful hands. Printed directions for setting and cultivating are sent with every package.

GEORGE SEYMOUR & CO.,

South Norwalk, Conn.

LAWTON (OR NEW-ROCHELLE) BLACKBERRY.

WE ARE PREPARED TO FILL OR-

ders PROMPTLY for GENUINE PLANTS of this remarkable fruit, carefully packed for shipment to any part of the world; from the largest and most reliable growers, at the following

REDUCED PRICES, viz.:

\$20 per hundred; \$11 per fifty;

\$4 per dozen; \$2 25 per half dozen.

Pamphlets treating of Origin, Characteristics and Culture of the plant, forwarded on application.

DREW & FRENCH.

Commission Dealers in Domestic Fruit and Produce,

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THE SEACOR MAMMOTH BLACK-

BERRY.—(By some called the LAWTON BLACKBERRY by others the NEW-ROCHELLE BLACKBERRY.)—Lewis A. Seacor, the first Discoverer and Propagator of this rare and valuable fruit, respectfully informs his friends and the public that he has on hand a stock of Plants that he warrants of the pure kind, which he offers for sale. All Plants taken up and boxed or bundled in good order FREE OF CHARGE, and delivered in New-York every Friday in the month of April by himself personally, at the following prices: \$18 per 100; \$9 for 50; \$5 50 for 25, and \$3 per dozen.
LEWIS A. SEACOR,
New-Rochelle, Westchester county, N. Y.

THE NEW-ROCHELLE BLACKBERRY.

THE STOCK OF PLANTS OF THE

late ISAAC ROOSEVELT is now offered at reduced prices, viz.: \$15 per 100; \$8 for 50, and \$3 per dozen, carefully packed without extra charge, with directions for cultivation with each package.

N. B.—This is the same variety which is by some, though erroneously, called the LAWTON BLACKBERRY. Also HOP TREES—A rare and useful Tree, whose fruit possesses all the properties of the ordinary Hop. Price \$1 each.
P. C. ROOSEVELT,
Pelham, Westchester county, N. Y.

NEW-ROCHELLE (LAWTON) BLACK-

BERRY—Genuine Plants for sale on liberal terms by the subscriber.

SIMON LESTER,

New-Rochelle,

Westchester Co., N. Y.

Can apply for information at
J. W. LESTER'S,
No. 161 Water-st.;

or to R. L. ALLEN, 189 Water-street, New-York, who has my Plants for sale.

BEES!! BEES!! BEES!!!

THE SUBSCRIBERS WILL SELL A

limited number the coming Spring. The price for No. 1 stocks of last year's swarms will be \$8. For packing on springs in cases, and delivering at the railroad depot, 50 cents each, additional. When three or more are ordered, the "Mysteries of Bee-Keeping" will be added gratis. They will be delivered about the first of April. Purchasers are requested to call and make their own selection, when practicable.

Address
M. QUIMBY,
St. Johnsville, Montgomery Co., N. Y.

SHORT HORNS AT PRIVATE SALE.

THE SUBSCRIBERS OFFER FOR

sale a few Bull and Heifer CALVES, the get of their Prize Bulls Astoria 221, A. H. B., and of Lord Vane Tempest 2nd, A. H. B. 669, together with a number of COWS and HEIFERS. We have also for sale a few choice Suffolk PIGS, from the Jackson importation, and a few superior Berkshire PIGS.

Illustrated Catalogues of our stock, and any information concerning them, can be obtained of C. M. SAXTON, 140 Fulton street, New-York, or of the subscribers.

B. & C. S. HAINES, Elizabeth, N. J.

FARMERS WILL FIND AT THE

NEW YORK AGRICULTURAL WARE-

HOUSE, 139 WATER STREET, every variety of implements necessary to manage their farms with the utmost economy and success. Every form, variety and size of Plows, Harrows, Cultivators, Seed and Corn Planters, Horticultural and Draining tools, &c. &c.

CORN HUSKING MACHINES—A new and valuable invention, costing only \$12, is capable of husking several hundred bushels per day.

COTTON SEED PLANTERS—This is another new and important invention, which will save the labor of several hands, and sow the seed much more evenly, and yield a better standard of young plants than can be secured by hand-planting. Every new and important agricultural implement will be found in this establishment, all made of the best materials and on the most approved principles. As I manufacture all the leading implements in my warehouse, I am able to guarantee their quality in all respects.
R. L. ALLEN.

PERUVIAN GUANO,

In large or small quantities.

R. L. ALLEN, 189 Water-street, New-York.

Beware of adulterated or damp GUANO, and of all other Fertilizers that can be mixed or depreciated without detection. The demand for Artificial and Commercial Fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so large an extent in England, as to have called for the most stringent measures for the exposure of rascality and the protection of farmers.

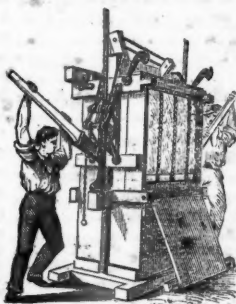
SOMETHING NEW.**GREAT LABOR SAVING MACHINE.****SOMETHING NEW.****SOMETHING NEW.****SOMETHING NEW.****SOMETHING NEW.****SOMETHING NEW.****SOMETHING NEW.****SOMETHING NEW.****SOMETHING NEW.****SOMETHING NEW.**

A new contrivance of great value to Farmers generally has just been invented by Jared A. Ayres of the Deaf and Dumb Institute at Hartford, Conn. This apparatus, applied to any ordinary well, renders it equivalent to a living spring, so that cattle, horses, sheep, or any other animal, large or small, will at any time draw for themselves a full supply of water. The same apparatus is applicable to ordinary house wells, so that a woman or child can draw water by simply ascending the steps to the well curb.

The whole apparatus is SIMPLE, DURABLE, CHEAP, and everywhere applicable. A full description may be obtained without expense, by addressing

HENRY A. DYER, Hartford, Conn.

N.B.—The Patent Rights for several of the states, and also for counties, will be sold at a reasonable price.



FAIRBANKS & CO., Scale Manufacturers, No. 189 Broadway, New-York.

Ingersoll's Premium Portable HAY PRESS.**THIS PRESS**

combines greater power and portability, requires less labor, occupies less space, and costs less money, than any other machine for baling hay ever offered to the public.

It is equally convenient for pressing cotton, hemp, hops, broom corn, rags, husks, &c. Samples may be seen at our warehouse, and circulars, with cuts and full descriptions, will be furnished upon application, by letter or otherwise, to

ALLEN'S IMPROVED MOWER, AND MOWER AND REAPER—the best in America. A large assortment of the most approved Agricultural and Horticultural implements, of good quality and at low prices, For sale by R. L. ALLEN, 189 and 191 Water-st., New-York.

GANSE'S PATENT HAND CULTIVATOR

IS NOT INTENDED TO DESTROY weeds after they are grown, but to prevent them from growing, and so to give the whole strength of the soil to the crop. It is to be used as soon as the row of young plants can be seen, when it cleans it upon both sides at once, within an inch, if you wish, without the possibility of tearing up or covering the most delicate young plant. It runs on wheels, and is worked with great rapidity. A man can go over his patch five times with this tool, while he could once with his hoe. It will not work among stones or long manure.

"It is a great improvement upon any hand implement."—*New York Tribune*.

"We have just witnessed its operation, and have no hesitation in recommending it as perfectly adapted to the purpose intended."—*Monmouth Inquirer*.

"It is one of the great labor-savers of the day. It will entirely revolutionize the system of truck tending."—*N. Y. Standard*.

From Hon. Wm. H. CONOVER, an extensive and successful onion-grower, Freehold, N. J.:

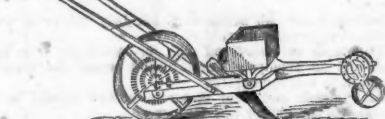
"One man with one of them will go over as much land in a day as five will with common hoes, and do the work much better. If I continue in this gardening business, I would not take one hundred dollars for mine, provided I could not get another."

From Messrs. OLCOTT & VAIL, proprietors of Westchester Farm School:

"We are satisfied with its practical value. In judicious hands, it must accomplish all you could wish for it."

Retail Price, \$6. A discount to dealers. For sale by JOHN GANSE, Manufacturer, 134 Thompson-street, New-York;

R. L. ALLEN, 189 Water-street; and H. F. DIBBLE, 100 Nassau-street.



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PATENT CORN PLANTER.

I AM NOW MANUFACTURING THIS invaluable implement, which plants and covers the corn with no more labor than is usually spent in marking out the ground. It is unsurpassed as a planter of Beans, Peas, Sorghum and other similar seeds.

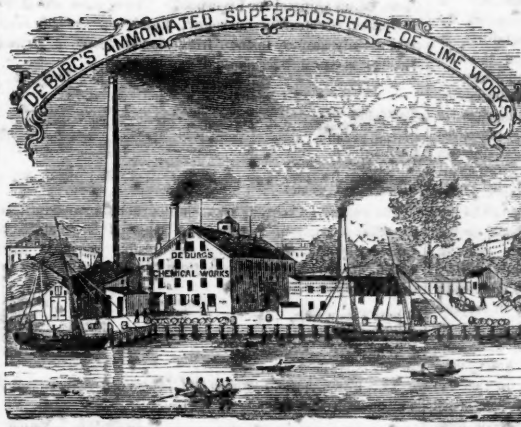
I am also ready to treat with implement makers and dealers on rights to manufacture.

For sale wholesale and retail. For description, terms, &c., address

JOHN OUTRAM, Elmira, N. Y.

DE BURG'S

NO. 1

AMMONIATED SUPERPHOSPHATE.**WARRANTED GENUINE.**

BEWARE of unscrupulous experimenters and imitators of the above now acknowledged reliable Fertilizer.

The Subscriber tenders his sincere thanks for the liberal support he has received from the Agricultural community for the past six years, and further assures his patrons no exertions shall be wanted on his part to merit their continued support, by supplying them with a uniform article.

Perhaps one of the best proofs of the value of his compound, is the greatly increased demand, unprecedented in the history of Fertilizers, and not equalled by Guano itself. As there are a large number of Superphosphates in market, for the value of which he would not like to be responsible, he earnestly requests all purchasers, to be careful to get the genuine article from himself, or his accredited agents, to whom he holds himself responsible for its good character.

The increasing demand for this favorite Fertilizer still continues. Six years' scrupulous trial, on all soils, and in all States, places its success, as a Fertilizer, beyond all problem.

Analysis and testimonials will be forwarded, on application to the Subscriber.

C. B. DE BURG, Four blocks South of Peck Slip Ferry, WILLIAMSBURG, L. I., New-York.

No. 1 PERUVIAN GUANO.

MANIPULATED GUANO—SUPERPHOSPHATE OF LIME, BONE DUST, POUDRETTE, &c. For sale by GRIFFIN BROTHER & CO., 60 Courtlandt-st., New-York.

TO FARMERS AND GARDENERS.

THE SUBSCRIBERS OFFER FOR sale 40,000 Barrels of their

NEW AND IMPROVED POUDRETTE,

Manufactured from the night soil of New-York city, in lots to suit purchasers. This article (greatly improved within the last two years) has been in the market for eighteen years, and still defies competition as a manure for Corn and Garden Vegetables, being cheaper, more powerful than any other, and at the same time free from disagreeable odor. Two barrels (\$2 worth) will manure an acre of corn in the hill, will save two-thirds in labor, will cause it to come up quicker, grow faster, ripen earlier, and will bring a larger crop on poor ground than any other fertilizer, and is also a preventive of the cut worm; also, it does not injure the seed to be put in contact with it.

The L. M. Co. point to their long standing reputation, and the large capital (\$100,000) invested in their business, as a guarantee that the article they make shall always be of such quality as to command a ready sale.

Price, delivered in the city free of charge and other expense:

One barrel.....	\$2 00
Two barrels.....	3 00
Five barrels.....	8 00
Six barrels.....	9 50

And at the rate of \$1 50 per barrel for any quantity over six barrels.

A Pamphlet, containing every information, will be sent (FREE) to any one applying for the same. Our address is

THE LODI MANUFACTURING CO., Office 60 Courtlandt st., New-York.

WILLARD FELT, No. 14 Maiden-lane, Manufacturer of Blank Books, and Importer and Dealer in PAPER and STATIONERY of every description. Particular attention paid to orders.

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CELEBRATED

GERMAN BITTERS.

PREPARED BY

Dr. C. M. JACKSON, Philad'a, Pa.

WILL EFFECTUALLY CURE

LIVER COMPLAINT, DYSPEPSIA, JAUNDICE,

CHRONIC OR NERVOUS DEBILITY,

DISEASES OF THE KIDNEYS

AND ALL DISEASES

ARISING FROM

A DISORDERED

LIVER

OR

STOMACH:

Such as Constipation, Inward Piles, Fullness or Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fullness or Weight in the Stomach, Sour Eructations, Sinking or Fluttering at the Pit of the Stomach, Swelling of the Head, Headache, and Difficult Breathing, Fluttering at the Heart, Choking or Suffocating Sensations when in lying posture, Dimness of Vision, Dots of Webs before the Sight, Fever, and Dull Pain in the Head, Debility of Perspiration, Yellowness of the Skin and Eyes, Pain in the Side, Back, Chest, Limbs, &c., Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginations of Evil, and Great Depression of Spirits.

The Proprietor, in calling the attention of the public to this preparation, does so with a feeling of the utmost confidence in its virtues and adaptation to the diseases for which it is recommended.

It is no new and untried article, but one that has stood the test of a ten years' trial before the American people, and its reputation and sale is unvaried by any similar preparations extant. The testimony in its favor, given by the most prominent and well-known physicians and individuals in all parts of the country, is immense, and a careful perusal of the Almanac, published annually by the Proprietor, and to be had gratis of any of his Agents, cannot but satisfy the most skeptical that this remedy is really deserving the great celebrity it has obtained.

Principal Office and Manufactory, No. 86 ARCH-street, Philadelphia, Pa. And for sale by all Druggists and Store-keepers in every town and village in the United States and Canada.

PERUVIAN GUANO—THE BEST quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo, or in smaller quantities, at the lowest price to be had in this market.

SUPERPHOSPHATE OF LIME.

Being agent for the most extensive manufacturers, I can supply a first rate article, at the lowest manufacturers' prices.

BONE DUST, coarse and fine ground, also sawings and filings.

POUDRETTE and TAFEU by the barrel.

PLASTER, &c. &c. &c.

This warehouse is the largest depot in the United States for the various kinds of Fertilizers, all of which are guaranteed of the most reliable quality.

Agricultural and Horticultural Implements, Field and Garden Seeds, a large assortment of all the improved kinds.

R. L. ALLEN, 189 Water-st., New-York.

"EMPIRE ANIMAL FERTILIZER."

Manufactured under Letters Patent of September, 1856.

OFFICE,

NASSAU BANK BUILDING,
7 Beekman-street,
NEW-YORK.

MANUFACTORY, }
Barren Island.

WAREHOUSES. }
{ Foot of 45th st., East River.

THIS PREPARATION, ONE OF THE

most important discoveries of the age, is a highly nitrogenized Superphosphate of Lime, with Sulphate and Phosphate of Ammonia, Prepared Blood and Animal Fibre, being the most Concentrated Fertilizer yet offered to the Public.

It is adapted to every Soil, Climate and Crop. The advantages it holds over Peruvian Guano, and the various Artificial Manures that are in the Market, is the fixed state of the Ammoniacal Salts, and the large quantity of nitrogenized matter yielding Ammonia, all being in such a state as to come into action as it is required by the growing plant, and not wasted in the atmosphere, like the easily decomposed Guano or Superphosphate preparations mixed with Volatile Salts of Ammonia. The proportion of Phosphate which this Fertilizer contains is ample to supply the deficiency or absence of those necessary substances which are evidently withdrawn from the soil by the growth of vegetation.

In offering this valuable Fertilizer to the public, I would state that I have arranged for all the dead Animals, Blood and Offal of the city of New-York, which will secure to me a constant and ample supply of Animal matter from which, by my Patent Process, I produce the Phosphates and Salts of Ammonia which form so valuable a part of this preparation.

The Manufacture of the Fertilizer being under the especial and immediate direction of a practical Chemist, and my facilities for obtaining the necessary amount, kind and quality of the materials, enables me to guarantee to the public a uniform and reliable article.

A Specimen of different lots were submitted for examination to Samuel W. Johnson, Professor of Analytical Chemistry of Yale College, New-Haven; W. Gibbs, Professor of the Free Academy, New-York; Lawrence Reid, Professor of Chemistry, and James R. Chilton, Esq., of New-York, gentlemen whose abilities are well known to the agricultural world. They pronounce it the best of all Fertilizers, and their analysis verifies that it contains an average of

8 per cent of pure Ammonia;
20 " Phosphate of Lime;
45 " Organic Matter.

All applications will meet with prompt attention, if addressed to N. B.—The above article may also be obtained at the Manufacturer's prices, of R. L. ALLEN, 189 Water-street, New-York.

IMPORTANT TO**FARMERS, GARDENERS, AND PLANTERS.****THE BROOKLYN FERTILIZER MANUFACTURING COMPANY**

are now ready to offer for sale their *Ammoniated Tafeu* for the present at the low price of \$25 per ton. It is a highly efficient Fertilizer, prepared from Night Soil, Blood, and Butchers' Offal, received from the city of Brooklyn under a contract for ten years; therefore, consumers can always rely on its strict purity and uniformity—being manufactured under the supervision of a competent Chemist, and it is warranted to contain a very large percentage of Phosphates, Ammoniacal and Organic Substances, Potash, and other valuable ingredients, as may be seen by the analysis in our Circulars, and is believed to be one of the richest Fertilizers ever used. For orders, or further information, apply to the office of the Company, foot of South 11th-street, Brooklyn, E. D. or at 82 Water-street, New-York.

N. B.—Circulars with full particulars and analysis will be sent by mail to any one requesting them.

MARKET REVIEW, WEATHER NOTES, &c.

AMERICAN AGRICULTURIST OFFICE,
New-York, Feb. 26, 1887.

The unfavorable influences; referred to in our last, obstructed business, during the early part of the month. The recent severe freshets in the rivers of this and the neighboring states likewise, worked against activity in trade. The increased demand for money, and the high rates of interest claimed on loans, also contributed to depress the general markets,—by compelling holders of produce, in want of means to meet the current calls upon them,—to sell their supplies, regardless of prices,—which buyers, under such a pressure, could regulate to suit themselves. This pressure continues—to the injury of the market for Breadstuffs especially as these are the most freely offered—while the demand is comparatively moderate—though gradually reviving with the approach of fine weather. Local and Eastern dealers are the leading buyers. The resumption of navigation on Long-Island Sound has opened the markets of the New-England coast, to our merchants. Exporters are purchasing with reserve, notwithstanding the temptations to free movements, offered by the reduced prices of Breadstuffs, as well as by the plentiness of shiproom, and the low rates of freight. The receipts of Breadstuffs have been quite light, but receivers have evinced much willingness to sell and with those, owning supplies in store here, they have very readily met the requirements of buyers, even at the declining rates, current, particularly during the last week of the month. Flour, Corn and Oats, are now most freely offered. Wheat, Rye, and Barley, are comparatively scarce. Cotton is much dearer, with a fair supply and an active demand. Our available stock is estimated at about 82,500 bales, against about 47,300 bales same time last year. Owners are not anxious to sell, unless at full prices. Provisions are more inquired for at decidedly higher prices—especially for Hog products. Telegraph advices from Cincinnati, to Wednesday evening, report the latest returns of the hog slaughtering in the West, this season, as showing a deficiency of about 25 per cent in number, and of about 5 per cent in weight, as compared with the returns of the preceding season. This news affords much encouragement to factors, who show no hesitancy in availing themselves of the advantages which it occasions, in order to secure their own prices for such lots as they have to dispose of. The receipts of Provisions here are limited, as are likewise our available supplies. Groceries are in better request, yet, with pretty ample stocks of most articles, in market, prices show no remarkable changes. Hay opened with a reduced supply, and fair inquiry at very full rates, but during the past week, it has come in more freely, and though the demand has been pretty brisk, partly for shipment to Cuba, prices have favored buyers. Hemp, Hops, and grass seeds are, quiet, yet held with firmness, stocks generally being limited. Rice attracts more attention and is a shade dearer. Tallow, Tobacco and Wool, are in improved demand at rather better prices.

We annex a comparative list of the closing prices of the principal agricultural products, last month and this, showing the fluctuations since our previous issue:

	Jan. 30.	Feb. 26.
Flour—Common to Extra State	\$6 25 @ 6 75	\$6 15 @ 6 65
Common to Fancy Western	6 35 @ 6 65	6 20 @ 6 60
Extra Western	6 65 @ 9 00	6 50 @ 8 50
Fancy to Extra Genesee	6 80 @ 8 75	6 75 @ 8 50
Mixed to Extra Southern	7 00 @ 9 00	6 75 @ 9 00
Rye Flour—Fine and Super	3 75 @ 5 25	3 50 @ 5 25
Corn Meal	3 15 @ 3 65	3 25 @ 3 75
Wheat—Canada White	1 65 @ 1 80	1 65 @ 1 80
Western White	1 65 @ 1 80	1 65 @ 1 80
Southern White	1 67 1/2 @ 1 80	1 68 @ 1 80
All kinds of Red	1 40 @ 1 50	1 40 @ 1 60
Corn—Mixed	60 @ 75	71 @ 75
Yellow	72 @ 75	72 @ 78
White	72 @ 75	72 @ 82
Oats—State and Western	50 @ 54	49 @ 54
Jersey	Nominal.	46 @ 49
Southern	Nominal.	Nominal.
Rye	92 @ 1 00	90 @ 95
Barley	1 05 @ 1 32	1 15 @ 1 42 1/2
White Beans	1 75 @ 2 00	1 75 @ 2 00
Black-eyed Peas, per 2 bush.	12 1/2 @ 13 1/2	12 1/2 @ 14
Cotton—Middlings, per lb.	12 1/2 @ 13 1/2	12 1/2 @ 14
Fair	12 1/2 @ 13 1/2	12 1/2 @ 15
Rice, per 100 lbs.	3 25 @ 4 37 1/2	3 50 @ 4 50
Hops, per lb.	7 @ 10	7 @ 10
Pork—Mess, per bbl.	20 00 @ 21 50	22 25 @ 23 50
Prime, per bbl.	17 75 @ 18 00	18 25 @ 18 50
Bacon—Country Mess	10 75 @ 13 00	10 75 @ 13 00
Prime	9 50 @ 10 50	10 00 @ 11 00
Hogs, Dressed, per lb.	9 1/2 @ 10 1/2	8 1/2 @ 9 1/2
Lard, in bbls. per lb.	13 @ 13 1/2	14 1/2 @ 14 1/2
Butter—Western, per lb.	17 @ 22	16 @ 23
State, per lb.	21 @ 26	21 @ 27
Orange County, per lb.	25 @ 30	27 @ 30
Cheese, per lb.	11 @ 11 1/2	12 1/2 @ 13
Potatoes—Carters, per bbl.	3 00 @ 4 00	3 00 @ 4 00
Mercers, per bbl.	3 00 @ 3 25	2 50 @ 3 25
Onions—Red, per bbl.	2 50 @ 3 00	2 50 @ 3 00
White, per bbl.	3 00 @ 4 00	3 00 @ 4 00
Apples, per bbl.	2 00 @ 3 00	2 50 @ 6 00
Hogs, fresh, per dozen	30 @ 30	25 @ 27
Limes, per dozen	25 @ 30	25 @ 30
Plumbers, Live Geese per lb.	50 @ 55	50 @ 56
Beef—Clover, per lb.	11 1/2 @ 12	13 @ 13 1/2
Flax, per bushel	Nominal.	Nominal.
Timothy, mowed, per bushel	Nominal.	Nominal.
Timothy, reaped, per bushel	3 00 @ 3 50	3 50 @ 4 00
Sugar, New-Orleans, per lb.	9 @ 11	9 1/2 @ 11
Molasses, New-Orleans, pri	75 @ 80	75 @ 76
Coffee, Rio, per lb.	9 1/2 @ 11 1/2	9 1/2 @ 11 1/2
Tobacco—Kentucky, &c, pr lb.	9 @ 17 1/2	11 1/2 @ 20

Seed Leaf, per lb.	11 1/2 @ 35	11 1/2 @ 35
Wool—Domestic fleece, per lb.	33 @ 63 1/2	40 @ 65
Domestic, pulled, per lb.	33 @ 50	34 @ 52 1/2
Hemp—Undr'd Amer'n pr ton.	210 00 @ 215	190 00 @ 210 00
Dressed American, per ton.	240 00 @ 260	240 00 @ 260 00
Flax—Jersey, per lb.	8 @ 11	8 @ 11
HAY, per 100 lbs.	1 00 @ 1 25	90 @ 1 12 1/2
TALLOW, per lb.	11 1/2 @ 11 1/2	12 1/2 @ 13
WHISKY, Domestic, per gal.	20 @ 28 1/2	28 1/2 @ 29
Oil, Cane, per ton.		39 @

We also append a similar comparative list of the closing rates of freight, on the leading articles of Domestic produce, being shipped for Liverpool. These rates are given in British, or sterling currency, which our leading shippers mainly employ in their freighting business. A British Shilling is equal to 23 cents of our money:

	January, 30.	February, 26.
Flour, per bbl.	s. d. 2 3 @ 2 3	s. d. 1 9 @ 1 9
Grain, per bushel.	6 1/2 @ 7 1/2	4 1/2 @ 5 1/2
Cotton, per lb.	11-32 @ 7 1/2	3-16 @ 7-32
Beef, per bbl.	4 @ 4	3 9 @ 4
Heavy Goods, such as Bacon, Butter, &c, pr tn	23 @ 27 6	17 6 @ 22 6
Tobacco, &c, pr tn		

The subjoined tabular statement presents summaries of the total receipts of the leading kinds of Breadstuffs, by railroad and coastwise, for twenty-five business days, ending to-day, of the exports from the port of New-York for the same period:

	Receipts.	Sales.	Exports.
Wheat Flour, bbls.	31,500	217,495	69,934
Wheat, bushels.	72,500	262,400	147,747
Corn, bushels.		600,000	220,825
Rye, bushels.		40,000	4,073
Barley bushels.		13,200	

This enables us to make the following comparison of the receipts and sales:

	Receipts.	Sales.
Total 25 days this month in bushels.	236,000	2,003,075
Total 29 days last month in bushels.	1,407,600	2,292,975

It also affords the following comparison of the exports, from the port of New-York, for twenty-nine business days last month, and twenty-five business days, this month:

	LAST MONTH.	THIS MONTH.
Flour, bbls.	140,900	69,934
Wheat, bush.	335,163	147,747
Corn, bush.	222,924	220,825
Rye, bush.	15,857	4,073
Oats, bush.	670	

About 400,000 bushels of wheat are in store at Chicago, to come forward as soon as navigation opens.

CATTLE MARKET.—The receipts of BEEVES for the four weeks ending Feb. 25, were 13,077, a little decrease upon the average receipts of January. The receipts ranged for weeks ending Feb. 4, 3,548; Feb. 11, 2,545; Feb. 18, 3,297; and Feb. 25, 3,757. Prices have varied as follows: Feb. 4th, 1c. advance; Feb. 11, 1c. advance; Feb. 18, 1c. decline, and Feb. 25, 1c. @ 1c. decline, leaving an advance of 4c. during the month. Wednesday, Feb. 25, prices were: Premium cattle, 13c. @ 14c. per lb. net or dressed weight; First quality, 11c. @ 12c.; Medium quality, 10 1/2c. @ 10 1/2c.; Poor quality, 9 1/2c. @ 10c.; Poorest quality, 9c. @ 9 1/2c.; General selling price, 10c. @ 11c.; Average of all sales, about 10 1/2c. @ 10 1/2c.

Receipts of SHEEP show again over last month, being 33,599, for the last four weeks. Prices now range at 12c. @ 14c. dressed weight.

THE WEATHER.—during the present month has been in direct contrast with that of January. No snow has fallen in this vicinity, nor has the mercury fallen lower than 45°. The past week especially has been very mild and farmers are commencing their spring operations. The frost was nearly out of the ground by the 20th, and blue-birds made their appearance on the 21st. The prospect is favorable for an early spring. Our condensed notes read thus: Feb. 1, 3, clear, and mild; 3, coldest day of the month, mercury 42°; 4, milder, rain at eve; 5 to 7, mild with thick fog, deep mud; 8, rain; 9 to 12, clear and cooler, mercury 50° morning of 11th; 13, light warm rain, mercury 67°; 14, 15, clear and warm; 16 heavy fog and rain, A. M., clear P. M.; 17, 18, mild and spring-like, with foggy mornings; 19 and 20, fog A. M., rain P. M. each day; 21, blue-birds made their appearance and nurseriesmen commenced to dig trees; 22 to 25, mild and very pleasant; 26, clear and cooler, froze at night.

Extensive and heavy fogs prevailed for a good portion of the month retarding the otherwise opening navigation.

WHEN MAILED.

This (March) No. will be mailed, a part on Saturday, Feb. 26, and the remainder on Monday, March 2nd. All delays thereafter, are to be charged to the Post Office Department.

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